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The Nurseryman's Forte: To Make America More Beautiful and Fruitful

MARCH 15, 1944



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The Nurseryman's Forte: To Make America More Beautiful and Fruitful

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AMERICAN NURSERYMAN
F. R. KILNER, Editor

Editorial

MANPOWER SUPPLY.

Because employment in war industries is at its peak and in some areas has even declined, some nurserymen have thought that the labor shortage might be eased this year. But administration spokesmen still predict a manpower squeeze ahead and urge the enactment of a national service law.

Some explanation lies in the latest statistics of the War Manpower Commission and the estimates of labor requirements by the Department of Commerce.

While no further additions to the labor force in war industries are anticipated, and little change is expected in other types of industrial employment, 800,000 additional persons will be absorbed into the armed forces in the first half of 1944. More important, the seasonal rise in employment in agriculture between January and July of this year is expected to reach 3,400,000 persons. That is the chief manpower requirement to be met. In view of the expansion of labor forces in war industries and the drain made by the armed forces, the seasonal requirements for more agricultural workers constitute a problem.

That phase of the labor situation affects nurserymen most acutely. If farm labor is going to be harder to obtain as the season advances, nurserymen would do well to make the best use of their available resources in that regard.

WAR'S COMPULSION.

What has often been suggested in peacetime, here and abroad—curtailment of the number of apple varieties propagated—may come about in England by edict of the government through the compulsion of war.

The executive council of the Horticultural Trade Association, at a recent meeting in London, had before it a suggestion emanating from the National Farmers Union, which had been before the ministry's horticultural advisory council, that during the period of acute shortage of stocks only such varieties of apples and pears should be propagated as are approved by the ministry of agriculture in consultation with the industry. After a lengthy discussion, a committee was appointed to consider the formulation of an H.T.A. list, using a former list of recommendations of the association as a basis.

The Mirror of the Trade

GUIDE TO POSTWAR PLANS.

After checking with more than 350 private concerns to find out how they are clearing the decks for postwar business, the National Association of Manufacturers is issuing several booklets to guide its members and other firms in this important undertaking. While no claim is made that these guidebooks contain all the answers, they do offer stimulating advice. In one of these booklets, entitled "Guide to Internal Organization for Corporation Postwar Planning," nine basic rules are laid down.

First, management should put its house in order by making sure that executives at all levels are the right men in the right places.

Second, capital should be laid by for the return to peacetime operations.

Third, the company's plan of conversion should be made in detail and written down in black and white.

Fourth, production facilities should be carefully studied. Do they make possible maximum production at minimum cost?

Fifth, postwar markets will be highly competitive. Can you trim your cost per unit anywhere along the line—manufacturing, selling and operating?

Sixth, review your markets and set definite goals for sales volume, employment and profits under conditions that may prevail after the war. (Most makers of durable goods estimate the retail prices of their products will be from thirty to forty per cent higher than in 1941 to cover higher costs.) Possibly you will produce new lines and serve new markets. This is the time to do the groundwork.

Seventh, revisions may have to be made on major policies relating to sales, manufacturing, finance, purchasing, personnel relations and public relations.

Eighth, after the war ends, executives may have to make speedy decisions under conditions which are as yet unpredictable. This calls for perfecting such operations and controls as budgets, cost accounting, executive reports, etc.

Ninth, a company may plan to deal in new products, but few will appear in the immediate postwar period. Most companies will find it imperative, for a while at least, to seek most of their profits and employment opportunities from existing products and better management.

POSTWAR HOUSING.

John B. Blandford, Jr., national housing administrator, last month forecast initial postwar requirements of 1,000,000 to 2,000,000 new houses for returning married servicemen and other families and an annual rate of 600,000 new houses to meet normal needs and replacements.

Addressing the annual meeting of the Associated General Contractors, he emphasized that these calculations are "quite apart from the accumulation of several million substandard dwelling units which are the real heart of the housing problem."

He said the communities themselves, rather than the federal government, must furnish the driving force toward achievement of housing goals.

DRY DECEMBER.

According to the federal weather bureau, rainfall was below normal in December, 1943, and widespread dryness prevailed. Most northern states were extremely dry, and only seven for the entire country had as much as normal precipitation. New York, New Jersey and Pennsylvania had the driest December of record; Michigan, Wisconsin, Minnesota and North Dakota the driest since 1913, and Ohio since 1925. Interesting were some midwest contrasts. While Iowa and Nebraska both had the driest December since 1929, in two adjoining states, Kansas and Missouri, it was one of the wettest of record.

For the year 1943, approximately three-fourths of the states were relatively dry, with the country-wide average 91.3 per cent of normal. It was the second year with a national deficiency in precipitation since the extremely dry year of 1936; the other dry year was 1939.

BOMBS and the war's restrictions have not lessened the interest of Londoners in the Royal Gardens at Kew. A warm Sunday, January 30, saw more than 6,500 persons pass through the turnstiles. The unusually mild weather had favored the development of early outdoor flowers, in England, while the conservatories were centers of attraction.

Propagation of the Rabbiteye Blueberry

By F. L. O'Rourke

The rabbiteye blueberry, Vaccinium ashei, is fast assuming horticultural importance throughout much of the coastal plain and lower piedmont area in several southern states. In well managed plantations, yields of 2,000 quarts per acre are not exceptional, and many individual records surpass this figure.

The fruit of selected rabbiteye varieties compares favorably with that of commercial varieties of the northern high-bush blueberry, which does not generally thrive south of the northern limits of South Carolina.

Southern or central Virginia may prove to be the northern limit where the rabbiteye blueberry can be grown profitably for its fruit, as the blossom buds are sometimes killed by low winter temperatures in the more northern part of its range. Its use as an ornamental, however, may extend well into the north, as the plants themselves are fairly hardy, and the glaucous foliage and graceful form of many varieties of this species render them worthy of use in landscape and garden plantings.

The rabbiteye blueberry has several essential characteristics which tend to make it valuable in economic erosion control. The vigorous growth and spreading habit of the numerous, closely spaced stems effectively break the force of wind and rain, while the laterally extending rhizomes, with their attendant mass of fine, fibrous roots close to the ground surface, firmly anchor the soil in place.

The rabbiteye type is more resistant to heat and drought than the northern high-bush blueberry and will thrive on comparatively dry and sandy sites as well as on sloping land where adequate soil and moisture conservation is practiced. Its adaptability to mulch culture favors its use on permanent terraces or for growing between contour strips planted to cultivated crops. Its long bearing season and high production of quality fruit make it a plant of unexcelled value in the southern farm program, where an abundance of fresh fruit for home use is both needed and appreciated.

Rabbiteye blueberries grow faster and higher than any other of the blueberry species. One-year shoots sixty inches or more in height are quite common, especially in well fertilized fields. The ultimate height of the bush may reach twenty feet or more. It is common practice to use stepladders in picking the fruit in Georgia and Florida.

It was rather unfortunate that when the rabbiteye blueberry was first brought under cultivation, improved varieties were not generally available and the plantations were set to bushes collected directly from the wild state. However, selections later made from these early unselected plantings have given rise to a number of named varieties, such as Owens, Hagood, Myers, Clara, Walker, Mineola, Suwanee, Black Giant and others. While these varieties vary widely in a number of characteristics, such as size, color and quality of berry, form of plant, suckering habit, color of leaves, etc., all are decidedly superior to the average run of those taken from the wild. Investigations now in process in selecting, breeding and testing new varieties will ultimately produce finer plants. In the meantime the growing demand for rabbiteye blueberry plants of merit should interest the nurseryman in propagating the present named varieties.

The rabbiteye blueberries are suckering in habit, in that shoots are formed from underground rhizomes close to but not from the crown of the parent plants. These rhizomes can be severed with a spade, and the shoots with attached roots dug and used as transplants. However, increase by this method is slow as compared with propagation by cuttings. Either hardwood or softwood cuttings may be used; hardwood cuttings require less labor and equipment than softwood cuttings and make larger plants the first year. A nursery in central Georgia has reported rooting of hardwood cuttings from fifty per cent to ninety-six per cent over several years of experience. The difference in rooting is attributed to the season and not to varietal differences.

Hardwood Cuttings.

The writer used hardwood cuttings made of one-year shoots taken from plants of seedling origin growing in the nursery at Glenn Dale, Md. The cuttings were approximately four



Rabbiteye Blueberry, Variety Hagood.

Paper by F. L. O'Rourke, Office of Research, Soil Conservation Service. Investigations carried out cooperatively with Bureau of Plant Industry, Soils and Agricultural Engineering, United States Department of Agriculture.

inches long, with the basal cut made just below a bud and the top cut just above a bud. These were set in an ordinary coldframe April 27 in a medium composed of one-third American peat and two-thirds bank sand. The cuttings were set in a vertical position two inches apart in 4-inch rows with the tops of the cuttings level with the surface of the medium. Cuttings were made with the "knife and anvil" type of shears and were not treated in any way. The entire frame was tightly covered with glass sash, upon which rested shades made of 1/16-inch mesh wire screen which had been painted several times with a thin asphalt varnish so that the light intensity beneath the shade was about forty per cent of full sunlight. Watering was done when necessary, usually about once per week. In mid-August the sashes were removed and about three weeks later the shades taken off to harden the plants for winter. The results are shown in table I.

Table I. Rooting and growth of hardwood cuttings of rabbiteye blueberry of different diameter in coldframe, April 27 to October 7, 1943.

Diameter range of cuttings (mm.)	Number of cuttings set	Per cent of cuttings rooted	Average mean height rooted plants (inches)
3.0 to 4.0	120	14.2	10.2
4.5 to 6.0	104	52.9	12.3
7.0 to 8.5	22	95.5	17.8

It is interesting to note that the cuttings of larger diameter produced the higher percentage of plants and also made the greatest growth during the season. This additional growth is of practical significance in that such a plant may be transferred to its permanent location in the field directly from the cutting frame, while the smaller plants require another year of care in the nursery, preferably bedded under irrigation.

It is not considered necessary to use glass sash as in the experiment cited, but it saves labor incidental to watering. In the Carolinas many nurserymen achieve success with hardwood cuttings of blueberry by using open frames beneath lath houses or even by covering frames in the open with shades constructed of unbleached muslin.

Growth of the cuttings in the coldframe can be greatly stimulated by the application of a soluble fertilizer in water every two or three weeks during the summer months. A teaspoonful of ammonium sulphate per gallon of water to cover the area beneath one sash (eighteen square feet) or certain commercial brands used according to directions will compensate greatly for the cost and effort involved. After applying the fertilizer it is well to sprinkle again with clear water in order to rinse any of the soluble material off the foliage and prevent burning.

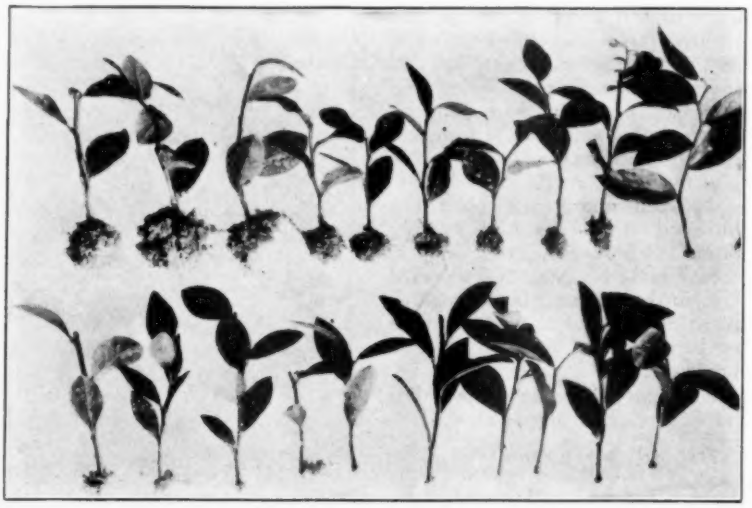
Propagation by Softwood Cuttings.

Ware[1] has shown that a high degree of survival can be obtained from softwood cuttings of rabbiteye blueberries taken in late April or early May under Mississippi conditions. He recommends taking cuttings from side shoots just as or shortly before the first flush of spring growth has ceased. He obtained better growth with a fifty per cent mixture of peat and sand than with pure sand in several propagating structures, including closed frames, sash houses, slat houses and shaded coldframes.

Trials on the rooting of softwood cuttings of rabbiteye blueberry were made by the writer at Glenn Dale, Md., during the summers of 1942 and 1943. These tests were made in a shaded greenhouse in which an electrically operated centrifugal atomizer was used to humidify the atmosphere except during rainy weather or during very cool nights. This method has previously been reported by Stoutemyer and O'Rourke[2]. Clean bank sand was used as a propagation medium, as former trials with a variety of plant subjects had shown that a peat-sand mixture is less favorable under the humidified conditions. Cuttings were made about five inches in length and held all the leaves except those near the base, which were removed for easy insertion in the sand. In 1942 a preliminary test to determine the value of growth substances as an aid to rooting rabbiteye blueberry cuttings was initiated with small numbers taken at random from plants of seedling origin. After eight weeks in the propagation bench those cuttings treated with indolebutyric acid in talc dust (1 part to 1000 and 1 part to 250) had more and longer roots than those not treated. While the growth substance did not increase the total number rooted, it did hasten the rooting process, which would allow for greater growth during the current season and a larger plant the succeeding year.

In 1943 cuttings were made and set in solutions containing mineral nutrients and sugar for twenty-four hours before the growth substance was applied. The results are tabulated in table II.

The mineral nutrient was a balanced formula of all essential and minor elements prepared by Dr. H. G. duBuy, plant physiologist, University of Maryland. It was used at the rate of one gram per liter of water. Sugar was added at the rate of twenty grams per liter. The cuttings were left in the solution for twenty-four hours, then taken out, the bases washed in running water, and those treated with growth substance dipped in a talc dust containing one part of



Softwood Cuttings of Rabbiteye Blueberry.
(Upper row, treated with indolebutyric acid in talc, 1 to 1000; lower row, check.)

[1] Ware, L. M.—Propagation Studies with the Southern Blueberry. Miss. Agr. Expt. Sta. Bull. 280. 1930.

[2] Stoutemyer, V. T. and F. L. O'Rourke—Spray Humidification and the Rooting of Greenwood Cuttings. Amer. Nurseryman: 5-6. 23-25. Jan. 1, 1943.

indolebutyric acid to 250 parts of talc dust. They were inserted in the sand on the greenhouse bench in lots of twenty randomwise as to positions.

It may be readily determined from the data shown in table II that indolebutyric acid is very effective as a root-forming agent irrespective of pretreatment, but that the mineral elements and sugar so greatly increased rooting as to justify further experimentation. The influence of indolebutyric acid was further borne out by the rooting response of five different lots of cuttings, which were taken from selected plants in southern Georgia and sent by mail to Glenn Dale, Md., where each shipment was equally divided into three lots. One lot was set untreated as a control, and the other two were treated with indolebutyric acid in talc at concentrations of 1 part to 250 and 1 part to 1000, respectively. In every case the cuttings treated with the higher concentration of indolebutyric acid were the first to root, followed closely by those treated with the lower concentration. The control cuttings took almost twice as long to form the same amount of root mass as did the treated cuttings.

Table II. Effect of certain mineral nutrient and sugar solutions and growth substance on survival and degree of rooting of the rabbiteye blueberry from July 24 to September 16, 1943. (Five replicated lots of twenty cuttings in each treatment.)

Pretreatment	Growth substance	Per cent rooted			
		Heavy	Med.	Light	Total
Tap water	None	1	0	8	9
Tap water	Ind. but. acid in talc 1-250	22	14	19	55
Mineral nutrient and sugar	None	0	2	18	20
Mineral nutrient and sugar	Ind. but. acid in talc 1-250	36	21	17	74

Summary.

1. The rabbiteye blueberry is potentially an erosion-resistant plant of high economic value, particularly useful in the lower south.

2. The glaucous-leaved strains of the rabbiteye blueberry have considerable ornamental value.

3. The suckering habit of many of the varieties of the rabbiteye blueberry may be utilized to obtain new plants by division, but the method is too slow to be of value.

4. The favored method of propagation of the rabbiteye blueberry is by hardwood cuttings, as it is inexpensive, efficient and quick and produces many large plants in a short period of time.

5. The softwood cutting method may be employed during the summer and is particularly useful for rapid multiplication of desirable clones.

6. Indolebutyric acid is very effective as a root-forming agent with softwood cuttings of this blueberry.

7. Soaking softwood cuttings in solutions containing mineral elements and sugar may aid rooting either with or without growth substance.

TRACTOR COSTS PER HOUR.

Cost per hour of using a tractor, including gasoline and oil consumption but not including wage for the operator, is 50 cents for nine to sixteen drawbar horsepower, 55 cents for sixteen to twenty-one drawbar horsepower and 70 cents for twenty-one to thirty drawbar horsepower, according to Prof. R. H. Wilcox, agricultural economist at the University of Illinois.

The cost figures represent the average for a number of farms in east central Illinois and give a basis for determining loan charges.

Cost per acre of using a mounted cultivator and tractor, including gasoline and oil but not the wage for the operator, is: Two-row with 9 to 15 h.p. tractor, 36 cents (20 acres in 10 hours); 2-row with 16 to 21 h.p. tractor, 32 cents (26 acres in 10 hours), and 4-row with 21 to 30 h.p. tractor, 23 cents (50 acres in 10 hours).

Per-acre costs of power-drawn machines, not including power or a wage for the operator, follow: Tractor plow, 2-bottom, 21 cents; 3-bottom, 24 cents; disk, 8-foot tandem, 7 cents; 10-foot tandem, 6 cents; harrow, 3 cents; rotary hoe, 10 cents; corn planter, 2-row, horse-drawn type, 13 cents; 2-row, tractor-drawn type, 15 cents; 4-row, tractor-drawn type, 18 cents, and corn picker, $1.

Grain drill, 8 or 10-foot, 15 cents; 11 or 12-foot, 20 cents; endgate seeder, 4 cents; grain binder, 40 cents; combine, 5 through 8-foot cutter bar, $1; 10 through 12-foot cutter bar, 95 cents; mower (hay), 5-foot cutter bar, horse-drawn type, 22 cents; 7-foot cutter bar, tractor-drawn type, 25 cents; side delivery rake, 25 cents, and dump rake, 20 cents.

Per-load costs, not including power or wage for operator, are: Manure spreader, 15 cents, and wagon, 3 cents.



Rabbiteye Blueberry, Variety Suwanee.

Hire California Secretary

At a special meeting of the board of directors of the California Nurserymen's Association, at Fresno, February 25, Lewis D. Crane, Oakland, was selected executive secretary of the association. This is the first full-time official the association has had and makes the California association one of the few organizations in this trade to have such an official.

The entire board of directors was present at the meeting and includes the following leading nurserymen of the state: Bert T. Kallman, Kallman's Garden Nursery, Santa Barbara, president; John McDonnell, McDonnell Nursery, Oakland; Clyde H. Stocking, Rosedale Nursery, San Jose; Ray D. Hartman, Leonard Coates Nurseries, San Jose; Donald C. Perry, Sunnyside Nursery, San Anselmo; Louis Vistica, Louis Vistica Nursery, Live Oak; Louis B. Lagomarsino, H. Lagomarsino & Sons, Sacramento; Charles Armstrong, Capital Nursery, Sacramento; Tom Edwards, Roy F. Wilcox & Co., Los Angeles; Leslie Merriweather, L. B. Merrick Nursery, Whittier; Clarence Mets, Mets Nursery, Ventura; Sidney Whitehorn, Fresno, and Gordon Wallace, Leonard Coates Nurseries, San Jose.

After the selection of Mr. Crane as executive secretary, a committee to be known as the executive committee to handle the office of the executive secretary was selected by nomination from the floor and election by the board. This committee is composed of George C. Roeding, California Nursery Co., Niles; Fred Hammerstrom, West Coast Nursery, Palo Alto; Donald C. Perry; Bert Plath, H. Plath & Sons, Inc., San Francisco; Frank James, E. James, Oakland; Charles Armstrong; Richard Westcott, general manager, Paul J. Howard's Horticultural Establishment, Los Angeles; Tom Edwards, Leslie Merriweather, Bert T. Kallman, Clarence Mets and Al Peterson, nursery broker, Arcadia.

This committee will meet as soon as the new secretary has taken office and will discuss with him the plans for him and outline the work which he will do.

In addition to watching matters of interest to the nurserymen with regard to legislation, the secretary will assist members in matters regarding labor supply, wage standardization, markets and inspection laws, and make reports regarding new methods of nursery practices. He will visit each unit of the association at least once a month, preferably at its monthly meeting, and from his office he will send out at least once a month a mimeographed news letter. For the present the office will be at Oakland at some site yet to be selected.

The new secretary of the association, Lewis Crane, was born at Syracuse, N. Y. He attended Syracuse University, taking a course in mechanical engineering and leaving in 1920. He interrupted his college work to serve in the United States army during the war. Until 1934 he lived and traveled in the middle west. Since coming to California he has been associated in one way or another with the nursery business, and in the central and northern part of the state, which has been his territory, he is well known and well liked. He is a good speaker and has been master of ceremonies at Christmas parties and other special affairs of the various units of the state association for several years.

Mr. Crane is married and has a daughter, Helen, who recently shipped from an east coast port for foreign duty as a staff aid in the American Red Cross, and a son, James, who is in the army air force school at San Antonio, Tex.

W. B. B.

ERNEST KRUSE, owner of the Wheeling Nurseries, Wheeling, Ill., became a grandfather last month. Mrs. Kruse is now visiting her daughter-in-law and the grandchild at Kansas City. The father, Capt. Robert Kruse, recently went overseas with his battery of field artillery.

THE former Miriam Elaine Pottenger, daughter of Mr. and Mrs. Lloyd Pottenger, Indianapolis, Ind., was married to Lieut. James William Shasteen, Sullivan, Ill., February 19. The wedding took place at Big Spring, Tex., where Lieutenant Shasteen is stationed. The bride and groom are graduates of Eureka College, Eureka, Ill.

In the Country's Service

NEWS OF JEWELL MEN.

The war was brought home more closely last week by the report received by the Harold Sanborn family of the death of their 19-year-old son, Charles, in battle in Italy. "Chuck," as he was always known by friends and fellow workers, was a sunny-dispositioned, willing young fellow, who spent his summers when out of school in the employ of the Jewell Nurseries, Inc., Lake City, Minn., where his father has for a long time been in charge of the cellar storage, sorting and grading of nursery stock.

Second Lieut. Orie J. (Whitey) Wiebusch has been on leave from the Jewell Nurseries, Inc., for about two years. He was employed as bookkeeper and purchaser. His address is: Hdqrs. Co., 136th Inf., A.P.O. 961, c/o Postmaster, San Francisco. All that can be said about his whereabouts is that he is on an island and it is not frequented by polar bears.

Corp. James Nordine, on leave from Jewell Nurseries, Inc., may be reached through Prov. M. C. Unit No. 1, A.P.O. 506, c/o Postmaster, New York. He is believed to be somewhere in the British isles.

Howard Halpaus, who was employed in the greenhouses of Jewell Nurseries, Inc., for several years, completed his training for sea duty and recently sailed for parts as yet unknown as a member of the merchant marine.

Kenneth R. Smith, who was a practicing attorney and secretary of the Jewell Nurseries, Inc., until about eighteen months ago, is a lieutenant in the infantry and now assigned to the 58th battalion at Camp Wolters, Tex. A bachelor, well along in his thirties, Lieutenant Smith says that he knows why they call this a young man's war.

Among men recently leaving Jewell Nurseries, Inc., for duty in the armed services were Lyle Eaves, John Yorde and Clifford Butler.

BEN STORJOHANN, of Ben's Nursery, Moline, Ill., recently left for the navy.

G. K. LUDWIG, proprietor of the East End Forest Nursery, York, Pa., is a member of the armed forces serving in Iceland.

LIEUT. CARL O. E. BOSENBERG, son of Henry Bosenberg, New Brunswick, N. J., is serving in an amphibious fleet in the Pacific. He entered the coast academy, at New London, Conn., three months after he graduated from Rutgers University as landscape architect in 1942.

Protection of Trees in Grade Changes

By A. Robert Thompson

When the construction trades are booming, dead trees along new roads and around new buildings are common sights, and it does not take much of a diagnostician to discover that the reason for much of this widespread killing is root smothering due to earth fills over the roots. Changes do not have to be great to cause serious consequences; fills of only a few inches of fine-textured soil can be fatal. Death may come suddenly, but affected trees may struggle along for several years before succumbing to the changed environment or the attack of secondary diseases or insects.

As you well know, respiration is carried on through the trunk and roots of trees as well as the leaves. When anything happens to decrease the oxygen in the soil, physiological changes in adjacent trees are inevitable. Tree health is also dependent upon the delicately balanced flora and fauna of the soil. These organisms help to break down organic matter and make it available to the tree. They also aid in keeping the soil mechanically suitable for root growth. The soil flora and fauna are themselves immediately dependent upon sound water and air relationships. Grade changes may interrupt their functions to such a serious degree that the soil becomes a medium unsuited for tree growth.

Some species appear to be more resistant to soil changes than others. Beech, oak, maple, linden and most of the conifers are among those which cannot withstand much fill over their roots, while willow, poplar, locust, sycamore and ailanthus are more resistant. However, no tree takes kindly to having its trunk and roots buried in several feet of earth, thus cutting off necessary oxygen and perhaps drowning it with an overabundance of water. We have all seen occasional individual trees whose root systems have been buried with a thick overlay of soil for many years without apparent injury, but usually a good reason for this may be found. Perhaps the tree is of a species which readily forms new roots; the fill may be rather shallow, of a porous nature or have been applied gradually, or in some other way normal underground air and moisture relationships have been sufficiently maintained to neutralize the physiological effect of the changed environment.

Paper on "Treatment of Trees Affected by Grade Changes," presented by A. Robert Thompson, forester, National Park Service, at the recent short course for nurserymen and arborists, combined with the central regional meeting of the National Shade Tree Conference, at Ohio State University.

Treating Buried Trees.

It is sometimes possible to aid a tree which is suffering from the effects of earth fills, but too often little attention is paid to such trees until symptoms become sufficiently pronounced to attract the attention of a layman. By then it may be too late. Such symptoms may include undersize, etiolated or drooping leaves, short twig growth, abnormal numbers of dead twigs and branches, excessive suckering or loosening of the bark.

Treatment of trees suffering from the effects of earth fills is not simple to prescribe, since local conditions and the degree of deterioration vary greatly. Obviously, the first step is to observe carefully the various parts of the affected tree, not forgetting to dig down and examine the all-important root system. If a substantial part of the fibrous roots are water-soaked, discolored or dead; if a strong, gaseous odor is encountered during the digging, or if the bark of the buried trunk is loose and the cambium discolored, there is little to recommend other than "complete dissection in cordwood lengths." If, however, the ill effects have not advanced to this stage or if the fill is relatively recent, there is often a 50-50 chance to help a buried tree.

Of first importance is to remove

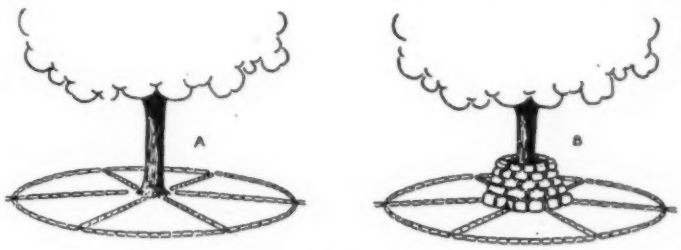


Fig. 1.—*A*, horizontal field tile. *B*, construction of dry well.

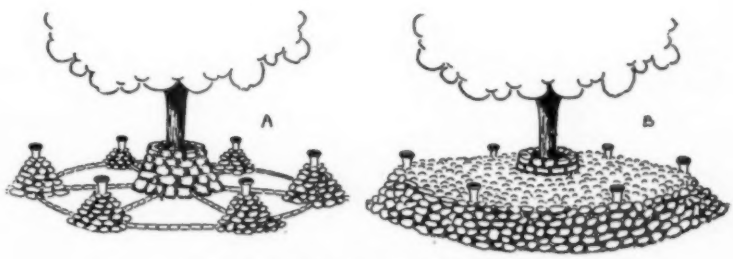


Fig. 2.—*A*, vertical tiles erected. *B*, placing of rock fill.

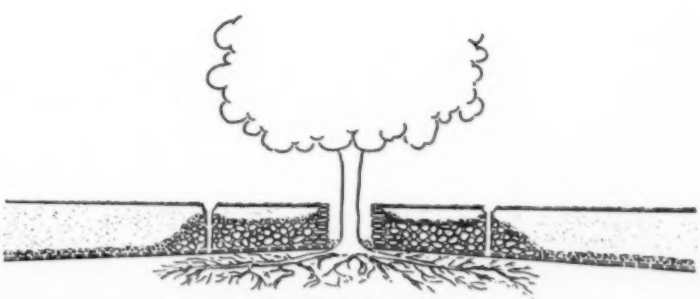


Fig. 3.—Cross-section through tree showing ideal aeration system.

from the entire root system as much as possible of the fill material. If the original soil is overmoist or downright soggy, it would be advisable to provide in some way for immediate drainage, either by trenching or the use of dug wells that can be pumped out. When the soil is sufficiently dry, compressed air may be blown into the soil to speed aeration.

Pruning of the crown may be helpful to compensate for root losses. In my opinion, fertilization, by any known method, would be useless and perhaps harmful until signs of recovery are detected in the crown. Later, the tree may be fed and a protection system installed before the desired grade is restored.

Protection Systems.

It is simply a matter of common sense to prevent injury from earth fills by taking precautionary measures before the grading is done rather than to attempt to correct the condition after the damage is apparent. Adequate grade-change treatment is relatively expensive, however, and not all trees will warrant the expense involved. Frequently the low relative value of a tree may indicate its removal to be more sensible than any type of protective treatment. Let us go over briefly some of the factors to be considered in determining whether or not a particular tree is worthy of treatment:

1. *Size, condition, species and environment.* Very young trees or very old, decadent specimens are seldom worthy of expensive protection. Usually it will be advisable to transplant or replace young trees rather than to protect them. Old trees should be carefully studied to determine if their life expectancy justifies treatment. Species which are normally long-lived are, of course, worthy of more consideration than short-lived ones. Other factors to be considered are the probabilities of wind throw and sunscald if surrounding trees have been or are to be removed. It would be unjustifiable to provide expensive protection for trees which are likely to be seriously endangered through altered conditions of exposure.

2. *Probability of serious insect or disease attack.* While it is rarely possible to predict with assurance that a certain tree will become prey to fatal insects or disease, the presence or absence in the locality of epidemics affecting the species should be carefully considered. For example, it would hardly be wise to provide a protection system for an elm where either Dutch elm disease or phloem necrosis is prevalent, or for pines likely to be attacked by bark beetles when new roads are cut through forest areas.

3. *Relation to other trees.* A tree growing alone, other conditions being equal, is more worthy of protection than one located in a forest or grove. The amount, type and rapidity of natural regeneration are also important factors. Trees growing close to buildings or parking areas; in playgrounds, city parks and private lawns, or along parkways and roads through pastoral scenery have, as a rule, a higher individual value than those in thickly wooded areas.

4. *Safety factors.* A tree which is dying, seriously ridden with insects or disease, structurally unsound, or obviously not windfirm should be removed rather than protected, as it constitutes an unwarranted hazard. Into this same category would fall trees which obscure vision at road intersections and curves and those which are dangerously close to the paved surface.

5. *Special values.* Road builders and landscape designers are sometimes confronted with the problem of preserving trees which, by reason of historical association, extreme age, large size or great beauty, are especially valuable. When construction work of various kinds would involve trees in this class, a change of plan or realignment should be considered. If plans cannot be changed, such trees are especially worthy of grade-change protection. Trees adjacent to gun emplacements, ammunition dumps and similar strategic facilities have a concealment value which transcends other considerations and reduces the importance of the expense item to a negligible factor.

6. *Degree and character of changes involved.* The amount of cut or fill will have a major bearing upon the extent of protection necessary to preserve trees—indeed, it is one of the principal governing factors in determining whether protection is warranted at all. If the change in grade is excessive, the expense of protection might conceivably be greater than the value of the tree in question. If the tree is located along a new highway in a forest area, the effect of the cut or fill upon drainage conditions will be of material importance. Sometimes, regardless of the care with which an aeration system is constructed, the tree may succumb if the moisture supply is cut off by consolidation of the road foundation or if interceptor ditches divert natural drainage.

Reduced to essentials, the objective in counteracting the ill effects of grade changes is to retain, so far as may be possible, a normal environment for the root system and lower part of the trunk. Although this objective should always be kept in mind, no hard and fast rules can be laid down for its application, as no two trees are identical or live under exactly the same environmental conditions.

Naturally, if the fill is to consist of only a few inches of sandy soil, little damage will be done to any tree, but as the depth and density of the fill increase some type of protection is needed to sustain the normal air and moisture relationships involved. Likewise, a cut of two or three inches over the root system is of negligible importance or is easy to overcome, whereas a severe cut will

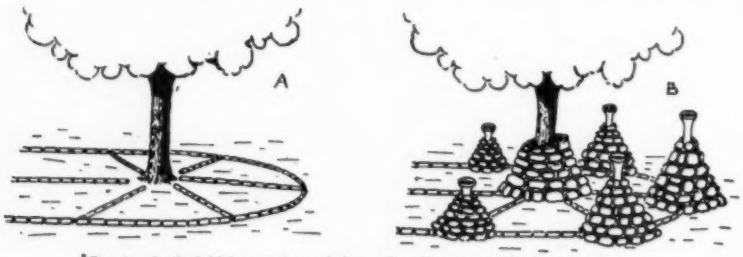


Fig. 4.—*A*, tile field for tree in road slope. *B*, well and vertical tiles erected.

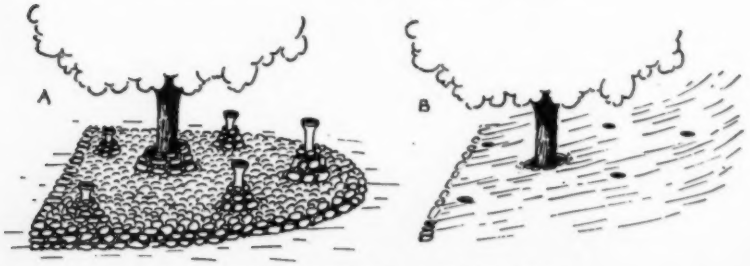


Fig. 5.—*A*, rock fill; dry wall at left. *B*, completed grading.

have serious consequences unless adequate protection measures are taken before the root system suffers.

Raising the Grade.

The usual corrective treatment for an earth fill has been to build a masonry well around the trunk of the tree involved. Many of these unquestionably have helped to preserve the health and vitality of buried trees, but too often the well, when used alone, has merely prolonged the tree's life for a short period. Proper protection must be provided for the roots as well as the trunk if the tree is to be safe. There are a number of techniques which may be used to provide suitable aeration and drainage. These will vary with the location, species, size, age, value and condition of the tree or trees involved; the depth of the fill and the degree of slope; the physical and chemical characteristics of the original soil and that to be used for the fill; the amount of soil moisture present, and the changes in surface and subsurface drainage to be anticipated. The system to be described has been found to be adequate, but may be modified as conditions warrant.

The first step in a practical aeration system for a tree around which the grade is to be raised is to remove all sod and green organic debris. It is well to cultivate all of the soil surface over the root area, but the roots themselves should be disturbed as little as possible. Most experienced arborists believe that it is desirable, at this point, to fertilize trees to assist them in overcoming the inevitable changes which lie ahead, although agreement is not 100 per cent. Considerably more scientific investigation is required. However, if fertilization is deemed advisable under local conditions, a normal dosage—say three pounds per inch of trunk diameter, breast high, of a 10-8-6 or a 10-6-4 fertilizer—may be applied to a deciduous tree by any one of the standard methods so long as it is well distributed. Less is known of the effects of fertilizers on conifers, but perhaps it would be safer to apply not over one-half of this dosage to the average conifer under similar conditions; indeed, it is advisable to use chemical fertilizers with considerable caution on conifers under any circumstances, particularly under wild or semiwild growing conditions.

It is desirable to lay a circle of 4-inch agricultural drain tile beneath the drip line of the crown. In excessively wet soil or in low spots, the tile may be laid in a very shallow ditch and surrounded by gravel or crushed stone. If trucks or tractors

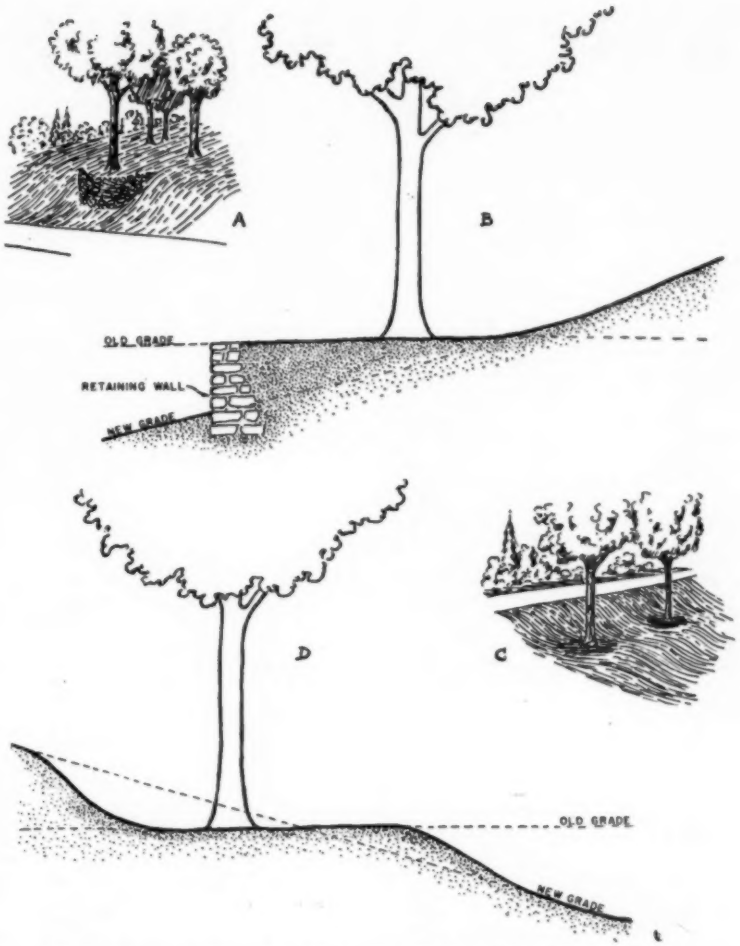


Fig. 6.—*A*, masonry retaining wall erected. *B*, cross section of modified aeration system showing use of retaining wall. *C*, molding of slopes. *D*, cross section of modified aeration system showing molding of slopes.

are to be used to distribute the subsequent fill, it is well to bridge the tile with large stones to prevent breakage. A minimum of four additional tile lines may be laid radiating out from the trunk so that in plan the entire system resembles the spokes and rim of a wheel. On trees of great size or under conditions of excessive moisture it may be necessary to supplement this tile system with additional radial and circular tile lines inside, and in some cases outside, the drip line. Trees close together can be treated by installing intersecting systems. It is well to determine the gradient of the tile lines by instrument to assure that there will be no dips or humps in the system. A drop of one-eighth inch per linear foot will provide adequate drainage. Tile lines which would drain toward the tree should be omitted or by-pass the trunk so as to drain elsewhere. All tile joints should be top-lapped with tarred paper or old pieces of metal to keep out silt.

At a reasonable distance from the trunk a dry well is laid up with the coping just above the grade of the final ground surface. This will keep out surface drainage. The diameter of the well should be governed by the growth probabilities of the tree. A small tree needs, relatively, a greater diameter well than one which is approaching its anticipated girth. The well should be so constructed that the radiating tile lines drain from the very bottom of the well. As many voids as possible should be left to permit free exchange of air through the porous rock fill which is to be placed outside the well. Large rectangular stones are most generally used for this purpose, but brick, discarded building tile or concrete blocks are quite satisfactory. It should be noted, however, that any remnants of lime mortar and cinders should be avoided, especially with conifers. The open ends of drain tile should be screened, and it is a good plan to add just enough

(Continued on page 35.)

WHOLESALE PRICE LIST

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FOREST NURSERY CO.

Established 1887 by J. H. H. Boyd

Our 57th Year

J. R. Boyd, President

McMINNVILLE, TENNESSEE

Telephone 234W

We offer for spring delivery the following list of first-class nursery stock in both finished and lining-out stock in Hardy Flowering Shrubs, Forest and Shade Trees, Evergreens and Vines. While we have a fairly good supply of most items offered, we advise early orders to insure that you get what you want before the supply is exhausted. We believe that good nursery stock planted out now will bring nice profits in the postwar period. Buy War Bonds and line out a nice assortment of nursery stock and you will have no financial worries when the smoke clears away and our boys come marching home after victory, which will be ours if we do our part as the boys in uniform are doing.

TERMS AND CONDITIONS: Five (5) per cent discount and free boxing and packing for cash with order. Free packing does not apply to balled and burlapped items. Open Accounts (on known or approved credit rating), two (2) per cent ten days; net, thirty days from date of shipment. C. O. D. orders must be accompanied by 25% cash.

Orders for less than ten of a variety or grade will be invoiced at an ADVANCE OF 25% OVER THE TEN RATE REGARDLESS OF THE SIZE OF THE ORDER, except in Conifers and Broadleaf Evergreens where the "per each" and "per 10" rates apply.

Prices in this list are subject to market changes without notice and cancel all previous printed prices.

We charge for boxing and baling at cost of material used. When stock is loaded bulk in car or truck, no packing charge is made. Orders accepted subject to prior sale of stock or crop injury or loss from any cause beyond our control. We are careful to keep our varieties true to name as labeled, and we will replace on proper proof, any stock that may prove otherwise, free of charge, or refund the amount paid us, but it is mutually agreed that we shall not be liable for any amount greater than the purchase price paid us. NO CLAIMS WILL BE CONSIDERED UNLESS MADE IN WRITING WITHIN TEN DAYS AFTER RECEIPT OF GOODS.

SHIPPING—We request our customers to give definite shipping instructions regarding manner in which they wish goods shipped. In the absence of special instructions, we use our best judgment, but without assuming responsibility. All shipments travel at risk and expense of purchaser. All shipments will be accompanied by State Certificate of Inspection.

TRUCK SERVICE—We are in a position to make deliveries with our own truck and also have access to some local delivery trucks for hire and can make deliveries unless prevented by federal or state regulation laws or gas rationing. If interested in a truckload delivery, write us and we will try to make arrangements.

REFERENCE—Any bank or business house in McMinnville, the commercial agencies or any of the leading nurserymen in the United States.

We will be glad to send samples for approval on any items on orders booked. Due to labor shortage and the extra cost of material and time, we will not send samples until we have an order for the stock, subject to approval of sample, which will be sent free on Shrubs and Trees except for transportation charges. (SEND WANT LIST FOR SPECIAL QUOTATIONS)

HARDY DECIDUOUS FLOWERING SHRUBS

S.—Seedlings; C.—Rooted Cuttings; Tr.—Transplanted; Br.—Branched; L.O.—Lining Out; Div.—Divisions.

ACANTHOPANAX PENTAPHYLLUM.

Five Leaf Aralia.

	Per 10	Per 100	Per 1000
6 to 12 inch, L.O.	$0.40	$ 3.50	$30.00
12 to 18 inch, L.O.	.50	4.50	40.00
18 to 24 inch, tr., well br.	1.25	10.00	....
2 to 3 feet, tr., well br.	1.50	12.50	....
3 to 4 feet, tr., well br.	2.50	20.00	....

ALMOND. PRUNUS GLANDULOSA. Double

Pink-flowering Almond, own root.

12 to 18 inch, tr., well br.	2.00	15.00	....
18 to 24 inch, tr., well br.	2.50	20.00	....
2 to 3 feet, tr., well br.	3.00	25.00	....
3 to 4 feet, tr., well br.	4.00	30.00	....

ALTHAEA. HIBISCUS SYRIACUS.

Shrub Althaea.

Varieties:

Ardens—Double violet.

6 to 12 inch, c.	.35	2.50	20.00
12 to 18 inch, c.	.40	3.00	25.00
18 to 24 inch, c.	.50	3.50	30.00
12 to 18 inch, tr.	.75	6.00	45.00
18 to 24 inch, tr.	.90	8.00	65.00
2 to 3 feet, tr.	1.25	10.00	....
3 to 4 feet, tr.	1.50	12.50	....

Varieties:

Amplissimus—Double red.
Duchess de Brabrant—Double rosy-red.
Jeanne d' Arc—Double white.
Lady Stanley—Semidouble white shade rose.
Pulcherrimus—Double pink.
Totus Alba—Single white.

6 to 12 inch, c.	.35	2.50	20.00
12 to 18 inch, c.	.40	3.00	25.00
18 to 24 inch, c.	....	3.50	30.00

Variety:

Rosea. Seedlings. Single Flowers.

6 to 12 inch, s.	....	.75	5.00
12 to 18 inch, s.	....	1.00	7.50
18 to 24 inch, s.	....	1.25	10.00
Grafting Size	....	1.25	10.00

AMORPHA FRUTICOSA. False Indigo

12 to 18 inch, s.	.30	2.00	15.00
18 to 24 inch, s.	.35	2.50	20.00
2 to 3 feet, s.	.40	3.00	....

ARONIA ARBUTIFOLIA. Red Chokeberry.

ARONIA MELANOCARPA. Black Chokeberry.

12 to 18 inch, L.O., div.	.20	1.25	10.00
18 to 24 inch, L.O., div.	.25	1.50	12.00
2 to 3 feet, L.O., div.	.30	2.00	15.00

BERBERIS THUNBERGI. Japanese Barberry.

3 to 6 inch, s.	....	.70	6.00
6 to 9 inch, s.	.10	1.25	10.00
18 to 24 inch, s., heavy br., 3-yr.	.60	5.00	45.00

BERBERIS THUNBERGI ATROPURPUREA.

Redleaf Barberry.

6 to 9 inch, s.	.40	3.50	30.00
9 to 12 inch, s.	.50	4.00	35.00
18 to 24 inch, tr.	2.00	15.00	....
24 to 30 inch, tr.	2.50	20.00	....

BERBERIS THUNBERGI ERECTA.

Truehedge Columnberry.

Plant Patent No. 110	5 Ea.	25 Ea.
18 to 24 inch	$0.33	$0.28
24 to 30 inch	.40	.35

CALLICARPA AMERICANA.

American Beautyberry.

	Per 10	Per 100	Per 1000
6 to 12 inch, s.	$0.30	$ 2.00	$15.00
12 to 18 inch, s.	.35	2.50	20.00
18 to 24 inch, s.	.45	3.50	30.00
18 to 24 inch Clumps	1.00	8.00	....

CALYCANTHUS FLORIDUS. Sweet Shrub.

4 to 6 inch, s.	.20	1.25	10.00
6 to 12 inch, s.	.30	2.00	15.00
12 to 18 inch, s.	.40	3.00	25.00
18 to 24 inch, s.	.50	3.50	30.00
2 to 3 feet, s.	.60	4.50	40.00

CEANOTHUS AMERICANUS. Jersey Tea.

6 to 12 inch, s.	.40	3.00	25.00
12 to 18 inch, s.	.45	3.50	30.00
18 to 24 inch, s.	.50	4.00	35.00
12 to 18 inch, tr.	1.00	8.00	....
18 to 24 inch, tr.	1.25	10.00	....
2 to 3 feet, tr.	1.50	12.00	....

CEPHALANTHUS OCCIDENTALIS.

Buttonbush.

6 to 12 inch, c.	.25	2.00	15.00
12 to 18 inch, c.	.30	2.50	20.00
18 to 24 inch, c.	.40	3.00	25.00

CHIONANTHUS VIRGINICUS.

White Fringe Tree.

3 to 6 inch, s.	.50	4.00	....
6 to 9 inch, s.	.70	6.00	....
9 to 12 inch, s.	1.00	8.00	....
12 to 15 inch, s.	1.25	9.00	....
15 to 18 inch, s.	1.50	10.00	....

CORNUS AMOMUM. Silky Dogwood.

6 to 12 inch, c.	.20	1.50	12.00
12 to 18 inch, c.	.30	2.00	15.00
18 to 24 inch, c.	.40	3.00	20.00
12 to 18 inch, well br.	.50	4.00	30.00
18 to 24 inch, well br.	.70	6.00	50.00
2 to 3 feet, well br.	1.00	8.00	90.00

CORNUS STOLONIFERA. Red Osier Dogwood.

6 to 12 inch, s.	.20	1.25	10.00
12 to 18 inch, s.	.30	2.00	15.00
18 to 24 inch, s.	.40	3.00	20.00
2 to 3 feet, s.	.50	4.00	25.00
18 to 24 inch, tr.	.70	6.00	50.00
2 to 3 feet, tr.	1.00	8.00	90.00
3 to 4 feet, tr.	1.50	12.00	....

CORYLUS AMERICANA. Hazelnut.

6 to 12 inch, s.	.45	4.00	35.00
12 to 18 inch, s.	.50	4.50	40.00
18 to 24 inch, s.	.60	5.00	45.00
12 to 18 inch, tr.	1.00	8.00	....

CYDONIA JAPONICA. Japanese Quince.

4 to 6 inch, s.	.20	1.25	10.00
6 to 12 inch, s.	.25	2.00	15.00
12 to 18 inch, s.	.30	2.50	20.00
18 to 24 inch, s.	.40	3.00	25.00

CYDONIA JAPONICA RUBRA. Japanese Quince.

True Upright Red. Nonfruiting.

4 to 6 inch, c.	.60	5.00	....
6 to 12 inch, c.	.70	6.00	....
12 to 18 inch, c.	1.00	8.00	....
12 to 18 inch, tr.	1.50	12.00	....
18 to 24 inch, tr.	2.50	20.00	....
2 to 3 feet, tr.	3.00	25.00	....

VISITORS WELCOME.
BUY WAR BONDS AND STAMPS

CYTISUS SCOPARIUS. Scotch Broom.

	Per 10	Per 100	Per 1000
6 to 12 inch, s.	$0.60	$ 5.00	....
12 to 18 inch, s.	.75	6.50	....
18 to 24 inch, s., br.	1.25	10.00	....
2 to 3 feet, s., br.	1.50	12.50	....
3 to 4 feet, s., br.	2.00	15.00	....

DEUTZIA SCABRA.

Variety:

Pride of Rochester—Double rose.

12 to 18 inch, well br.	.50	4.50	$40.00
18 to 24 inch, well br.	.80	7.00	60.00
2 to 3 feet, well br.	1.00	9.00	80.00
3 to 4 feet, well br.	1.50	12.00	....

EUONYMUS AMERICANUS. Brook Euonymus.

12 to 18 inch, s.	.20	1.25	10.00
18 to 24 inch, s.	.25	1.50	12.00

FORSYTHIA FORTUNEI. Fortune Forsythia.

FORSYTHIA INTERMEDIA. Border Forsythia.

FORSYTHIA SIEBOLDI. Upright Forsythia.

FORSYTHIA VIRIDISSIMA. Green-stem Forsythia.

6 to 12 inch, c.	.30	2.50	20.00
12 to 18 inch, c.	.35	3.00	25.00
18 to 24 inch, c.	.40	3.50	30.00
2 to 3 feet, c.	.60	5.00	40.00
12 to 18 inch, well br.	.60	5.00	40.00
18 to 24 inch, well br.	.80	7.00	60.00
2 to 3 feet, well br.	1.25	10.00	90.00
3 to 4 feet, well br.	2.00	15.00	120.00

HAMAMELIS VIRGINIANA. Witch Hazel.

3 to 6 inch, s.	.25	1.50	12.00
6 to 9 inch, s.	.30	2.25	17.50
9 to 12 inch, s.	.35	2.50	20.00
12 to 18 inch, s.	.45	3.50	30.00
18 to 24 inch, s.	.55	4.50	40.00
2 to 3 feet, s.	.65	5.50	50.00
2 to 3 feet, tr.	1.50	12.50	....
3 to 4 feet, tr.	2.50	20.00	....
4 to 5 feet, tr.	3.50	30.00	....

HANSEN'S BUSH CHERRY.

6 to 12 inch, 2-yr., s.	.70	6.00	....
12 to 18 inch, 2-yr., s.	1.00	9.00	....
18 to 24 inch, 2-yr., s.	1.50	12.50	....

HIBISCUS. Mallow Marvel. Mixed Colors.

1-yr., s., No. 1	.30	2.00	....
1-yr., s., No. 2	.25	1.50	....

HYDRANGEA ARBORESCENS.

Native Hydrangea.

6 to 12 inch, 1-yr.	.20	1.25	10.00
12 to 18 inch, 1-yr.	.30	2.00	15.00
18 to 24 inch, 1-yr.	.35	2.50	20.00
2 to 3 feet, 1-yr.	.45	3.50	30.00

HYDRANGEA QUERCIFOLIA.

Oakleaf Hydrangea.

12 to 18 inch, L.O., div.	.30	2.50	20.00
18 to 24 inch, L.O., div.	.35	3.00	25.00

HYPERICUM PROLIFICUM.

6 to 12 inch, s.	.20	1.25	10.00
12 to 18 inch, s.	.30	2.00	15.00
12 to 18 inch, tr.	1.00	7.50	60.00
18 to 24 inch, tr.	1.25	9.00	75.00
2 to 3 feet, tr.	1.50	12.00	....

LAGERSTROEMIA INDICA. Crape Myrtle.

Mixed Colors.

18 to 24 inch, tr.	1.50	12.00	....
2 to 3 feet, tr.	2.00	15.00	....
3 to 4 feet, tr.	2.50	20.00	....

LAGERSTROEMIA INDICA. Crape Myrtle.

Varieties: Alba—White. Rosea—Pink.	Per 10	Per 100	Per 1000
2 to 3 feet, tr.	$3.00	$25.00	....
3 to 4 feet, tr.	4.00	35.00	....
4 to 5 feet, tr.	5.00	40.00	....

LIGUSTRUM AMURENSE. Amur North Privet.

6 to 15 inch, L.O.	.30	2.00	$15.00
6 to 9 inch, 2 br. up	.40	2.50	20.00
9 to 12 inch, 2 br. up	.45	3.50	30.00

LIGUSTRUM IBOLIUM. Ibolium Privet.

6 to 15 inch, L.O., 1 & 2 br.	.25	2.00	15.00
6 to 12 inch, 2 br. up	.35	2.50	20.00

LIGUSTRUM OBTUSIFOLIUM. Ibota Privet.

6 to 12 inch, s.	.10	.90	7.50
12 to 18 inch, s.	.15	1.00	9.00
18 to 24 inch, s.	.25	1.50	12.00
2 to 3 feet, s.	.30	2.00	15.00
6 to 12 inch, 2 br. up	.20	1.25	10.00
12 to 18 inch, 2 br.	.30	2.00	15.00
12 to 18 inch, 3 br. up	.35	2.50	20.00
18 to 24 inch, 2 br.	.35	2.50	20.00
18 to 24 inch, 3 br. up	.45	3.50	30.00
2 to 3 feet, 4 br. up	.60	5.00	45.00
3 to 4 feet, 4 br. up	.80	7.00	....

LIGUSTRUM OVALIFOLIUM. California Privet.

6 to 15 inch, L.O.	.20	1.50	12.00
6 to 9 inch, 2 br. up	.25	2.00	15.00
9 to 12 inch, 2 br. up	.30	2.50	20.00
Grafting Grade	.30	2.50	20.00
18 to 24 inch, 2 br.	.40	3.50	30.00
18 to 24 inch, 3 br. up	.50	4.50	40.00
3 to 3 feet, 4 br. up	.70	6.00	50.00

LIGUSTRUM REGELIANUM. Regel Privet.

12 to 18 inch, tr.	1.25	10.00	....
18 to 24 inch, tr.	2.00	15.00	....

LIGUSTRUM SINENSE. South Privet.

6 to 12 inch, s.	.10	.80	7.00
12 to 18 inch, s.	.15	1.00	9.00
18 to 24 inch, s.	.20	1.50	12.00
2 to 3 feet, s.	.30	2.50	20.00
12 to 18 inch, br., c.	.20	1.50	12.00
18 to 24 inch, br., c.	.30	2.50	20.00
2 to 3 feet, br., c.	.35	3.00	25.00
12 to 18 inch, tr., well br.	.30	2.50	20.00
18 to 24 inch, tr., well br.	.40	3.50	30.00

LONICERA BELLA ALBIDA. White Belle Honeysuckle.

12 to 18 inch, c.	.35	2.50	20.00
18 to 24 inch, c.	.40	3.00	25.00
12 to 18 inch, hedging	.50	4.00	35.00
18 to 24 inch, hedging	.60	5.00	45.00

LONICERA FRAGRANTISSIMA. Winter Honeysuckle.

6 to 12 inch, c.	.25	2.00	15.00
12 to 18 inch, c.	.30	2.50	20.00
18 to 24 inch, c.	.35	3.00	25.00
12 to 18 inch, 2-yr., 3 br. up	.45	4.00	35.00
18 to 24 inch, 2-yr., 3 br. up	.70	6.00	50.00

LONICERA MORROWI. Morrow's Honeysuckle.

LONICERA TATARICA. Tatarian Honeysuckle.

Varieties of Tatarian:
Alba—White.
Rosea—Pink.
Rubra—Red.

6 to 12 inch, c.	.25	2.00	15.00
12 to 18 inch, c.	.35	2.50	20.00
18 to 24 inch, c.	.40	3.00	25.00
12 to 18 inch, hedging	.50	4.00	35.00
18 to 24 inch, hedging	.60	5.00	45.00
18 to 24 inch, well br.	1.00	8.00	75.00
2 to 3 feet, well br.	1.50	12.00	....

PHILADELPHUS CORONARIUS. Sweet Mock Orange.

6 to 12 inch, 1 yr., c.	.35	2.50	20.00
12 to 18 inch, 1 yr., c.	.40	3.00	25.00

PHILADELPHUS MONT BLANC.

PHILADELPHUS NIVALIS. Snowbank Mock Orange.

6 to 12 inch, c.	.35	2.50	20.00
12 to 18 inch, c.	.40	3.00	25.00
18 to 24 inch, c.	.45	3.50	30.00
18 to 24 inch, well br.	1.25	10.00	....
2 to 3 feet, well br.	1.50	12.00	....

RHUS CANADENSIS (Aromatica). Fragrant Sumac.

4 to 6 inch, s.	.20	1.50	12.50
6 to 12 inch, s.	.30	2.50	20.00
12 to 18 inch, s.	.35	3.00	25.00
2 to 3 feet, tr.	2.00	15.00	....
3 to 4 feet, tr.	2.50	20.00	....
4 to 5 feet, tr.	3.00	25.00	....

RHUS COPALLINA. Shining Sumac.

6 to 12 inch, s.	....	.60	5.00
12 to 18 inch, s.	.15	.90	6.00
18 to 24 inch, s.	.20	1.00	8.00
2 to 3 feet, s.	.25	1.50	12.00
3 to 4 feet, s.	.40	3.00	25.00
4 to 5 feet, s.	.50	4.00	35.00

RHUS COTINOIDES. American Smoke Tree.

6 to 12 inch, L.O., div.	.40	3.00	25.00
12 to 18 inch, L.O., div.	.45	3.50	30.00

RHUS. Sumac.

Variety:
Glabra—Smooth Sumac.

6 to 12 inch, s.	....	.60	5.00
12 to 18 inch, s.	.15	.90	6.00
18 to 24 inch, s.	.20	1.00	8.00
2 to 3 feet, s.	.25	1.50	12.00
3 to 4 feet, s.	.35	2.50	20.00
4 to 5 feet, s., whips	.45	3.50	30.00

ROBINIA HISPIDA. Rose Acacia.

	Per 10	Per 100	Per 1000
12 to 18 inch, L.O.	$0.30	$ 2.00	$15.00
18 to 24 inch, L.O.	.35	2.50	20.00
2 to 3 feet, L.O.	.40	3.00	25.00

SPIRAEA ANTHONY WATERER.

12 to 15 inch, tr.	1.75	12.50	....
15 to 18 inch, tr.	2.00	17.50	....

SPIRAEA ARGUTA. Garland Spiraea.

6 to 12 inch, c.	.50	4.00	30.00
12 to 18 inch, c.	.60	5.00	40.00
18 to 24 inch, c.	.70	6.00	50.00
12 to 18 inch, hedging	.70	6.00	50.00
18 to 24 inch, hedging	.90	7.00	60.00
12 to 18 inch, 2-yr., tr.	1.00	8.00	....
18 to 24 inch, 2-yr., tr.	1.25	10.00	....
2 to 3 feet, 2-yr., tr.	1.50	12.00	....
3 to 4 feet, 2-yr., tr.	2.00	15.00	....

SPIRAEA BILLIARDI ALBA.

6 to 12 inch, 1-yr., c.	.30	2.00	15.00
12 to 18 inch, 1-yr., c.	.35	2.50	20.00

SPIRAEA BILLIARDI ROSEA. Billiard Spiraea.

6 to 12 inch, c.	.35	3.00	....
12 to 18 inch, c.	.40	3.50	....

SPIRAEA CALLOSA ROSEA. Pink Fortune Spiraea.

6 to 12 inch, s.	.20	1.00	8.00
12 to 18 inch, s.	.25	1.50	12.00
18 to 24 inch, s.	.30	2.50	20.00

SPIRAEA OPULIFOLIA (Physocarpus). Ninebark.

12 to 18 inch, c.	.35	3.00	25.00
18 to 24 inch, c.	.45	4.00	30.00
2 to 3 feet, c.	.60	5.00	....

SPIRAEA PRUNIFOLIA Bridal Wreath.

12 to 18 inch, tr.	1.50	12.00	....
18 to 24 inch, tr.	2.00	15.00	....
2 to 3 feet, tr.	2.50	20.00	....
3 to 4 feet, tr.	3.00	25.00	....

SPIRAEA THUNBERGI. Thunberg Spiraea.

6 to 12 inch, c.	.50	4.00	30.00
12 to 18 inch, c.	.60	5.00	40.00
18 to 24 inch, c.	.70	6.00	50.00
12 to 18 inch, hedging	.70	6.00	50.00
18 to 24 inch, hedging	.90	7.00	60.00
12 to 18 inch, 2-yr., tr.	1.00	8.00	....
18 to 24 inch, 2-yr., tr.	1.25	10.00	....
2 to 3 feet, 2-yr., tr.	1.50	12.00	....
3 to 4 feet, 2-yr., tr.	2.00	15.00	....

SPIRAEA VANHOUTTEI.

2 to 3 ft., well br., clumps	1.25	10.00	....
3 to 4 ft., well br., clumps	2.00	15.00	....
4 to 5 ft., well br., clumps	2.50	20.00	....

STAPHYLEA TRIFOLIA. American Bladdernut.

6 to 12 inch, s.	.50	4.00	....
12 to 18 inch, s.	.60	5.00	....
18 to 24 inch, s.	.70	6.00	....

STYRAX JAPONICA.

2 to 3 feet, tr., well br.	2.50	....	....
3 to 4 feet, tr., well br.	3.00	....	....

SYMPHORICARPOS CHENAULTI. Improved Coralberry.

6 to 12 inch	.35	3.00	25.00
12 to 18 inch	.50	4.00	35.00
18 to 24 inch	.60	5.00	45.00
2 to 3 feet, tr.	1.50	12.00	....
3 to 4 feet, tr.	2.00	15.00	....

SYMPHORICARPOS RACEMOSUS. Snowberry.

6 to 12 inch	.35	3.00	....
12 to 18 inch	.40	3.50	....

SYMPHORICARPOS VULGARIS. Coralberry.

6 to 12 inch, c.	.20	1.50	12.00
12 to 18 inch, c.	.25	2.00	15.00

SYRINGA VULGARIS. Named Varieties.

Varieties:
Belle de Nancy—Double. Satiny rose bloom, white center.
Claude Bernard—Semidouble mauve.
Doyen Keteleer—Double violet.
Gloire de Lorraine—Heavenly blue. Double.
Lamartine—Hyacinth-flowered lilac. Pale pink.
Marc Michell—Double blue.
Michael Buchner—Double mauve.
Mme. Casimir Perier—Double white.
Mme. van Aerschot—Single pale mauve.
President Grevy—Double blue.

18 to 24 inch, tr.	3.50	....	....
2 to 3 feet, tr.	4.50	....	....

SYRINGA VULGARIS. Common Purple Lilac.

2 to 3 feet, tr.	2.50	20.00	....
3 to 4 feet, tr.	3.00	25.00	....

WEIGELA.

Varieties:
Amabilis—Light pink.
Hendersoni—Dark pink.
Rosea—Pink.

Lining Out	.30	2.00	....
6 to 12 inch, c.	.35	3.00	....
12 to 18 inch, c.	.40	3.50	....
18 to 24 inch, c.	.45	4.00	....
12 to 18 inch, well br.	.80	6.00	....
18 to 24 inch, well br.	1.00	8.00	....
2 to 3 feet, well br.	1.25	10.00	....

WEIGELA VARIEGATA. Pink Flower.

Lining Out	.30	2.50	....
6 to 12 inch, L.O.	.40	3.50	....
12 to 18 inch, L.O.	.50	4.00	....

FOREST and SHADE TREES

ACER DASYCARPUM. Silver Maple.

	Per 10	Per 100	Per 1000
6 to 12 inch, s.	....	$ 0.60	$ 5.00
12 to 18 inch, s.	$0.15	1.00	8.00
18 to 24 inch, s.	.20	1.25	10.00
2 to 3 feet, s.	.30	2.00	15.00
3 to 4 feet, s.	.40	3.00	25.00
4 to 5 feet, s.	.60	5.00	40.00
4 to 5 feet, tr., br.	2.00	15.00	....
5 to 6 feet, tr., br.	2.25	17.50	....
1¼ to 1½-inch caliper	6.50	....	....
1½ to 2 -inch caliper	8.00	....	....
2 to 2½-inch caliper	10.00	....	....

ACER RUBRUM. Scarlet Maple.

6 to 12 inch, s.	.20	1.25	10.00
12 to 18 inch, s.	.25	2.00	15.00
18 to 24 inch, s.	.35	2.50	20.00
5 to 6 feet, tr.	6.00	50.00	....
6 to 8 feet, tr.	8.00	70.00	....
8 to 10 feet, tr.	10.00	90.00	....

ACER SACCHARUM. Sugar or Hard Maple.

4 to 5 feet, tr.	6.00	....	....
5 to 6 feet, tr.	8.00	....	....

AESCULUS OCTANDRA. Yellow Buckeye.

4 to 6 inch, s.	.10	.70	6.00
6 to 12 inch, s.	.15	1.00	8.00
12 to 18 inch, s.	.25	1.50	12.00
18 to 24 inch, s.	.35	2.50	20.00
2 to 3 feet, s.	.40	3.00	25.00

AESCULUS PAVIA RUBRA. Dwarf Red Buckeye.

6 to 12 inch, 3-yr., s.	.50	4.00	....
12 to 15 inch, 3-yr., s.	.60	5.00	....
15 to 18 inch, 3-yr., s.	.70	6.00	....
18 to 24 inch, 3-yr., s.	1.25	10.00	....

AILANTHUS GLANDULOSA. Tree of Heaven.

12 to 18 inch, s.	.25	1.50	12.00
18 to 24 inch, s.	.30	2.00	15.00
2 to 3 feet, s.	.35	2.50	20.00

ALBIZZIA JULIBRISSIN. Mimosa Tree.

3 to 4 feet, s.	4.00	35.00	....
4 to 5 feet, tr.	5.00	45.00	....
5 to 6 feet, tr.	8.00	70.00	....
6 to 8 feet, tr.	10.00	90.00	....
8 to 10 feet, tr.	12.50	....	....

AMELANCHIER CANADENSIS. Downy Shad-blow.

18 to 24 inch, tr.	3.00	20.00	....
2 to 3 feet, tr.	4.00	30.00	....
3 to 4 feet, tr.	5.00	40.00	....
4 to 5 feet, tr.	6.00	....	....

BETULA NIGRA. River Birch.

6 to 12 inch, s.	.20	1.25	10.00
12 to 18 inch, s.	.25	2.00	15.00
18 to 24 inch, s.	.35	2.50	20.00
2 to 3 feet, s.	.40	3.00	25.00

CARPINUS CAROLINIANA. American Hornbeam.

6 to 12 inch, s.	.20	1.25	10.00
12 to 18 inch, s.	.25	1.50	12.50
18 to 24 inch, s.	.30	2.00	15.00

CATALPA SPECIOSA. Western Catalpa.

12 to 18 inch, s.	.15	.70	6.00
18 to 24 inch, s.	.20	1.00	8.00
2 to 3 feet, s.	.25	1.50	12.00
3 to 4 feet, s.	.35	2.50	20.00
4 to 5 feet, tr., br.	1.25	10.00	....
5 to 6 feet, tr., br.	1.50	12.50	....
6 to 8 feet, tr, br.	2.00	15.00	....

CERCIS CANADENSIS. American Redbud.

4 to 6 inch, s.	....	.70	6.00
6 to 12 inch, s.	.20	1.00	8.00
12 to 18 inch, s.	.30	1.50	12.00
18 to 24 inch, s.	.40	2.50	20.00
2 to 3 feet, s.	.40	3.00	25.00
3 to 4 feet, s.	.60	5.00	40.00
4 to 5 feet, tr.	3.50	30.00	....
5 to 6 feet, tr.	4.50	40.00	....
6 to 8 feet, tr.	6.50	60.00	....
8 to 10 feet, tr.	10.00	90.00	....

CORNUS FLORIDA. White-flowering Dogwood.

6 to 12 inch, s.	.25	1.50	12.00
12 to 18 inch, s.	.30	2.00	15.00
18 to 24 inch, s.	.35	2.50	20.00
2 to 3 feet, s.	.45	3.50	30.00
3 to 4 feet, s., well br.	.60	5.00	45.00
4 to 5 feet, s., well br.	1.50	12.00	100.00
Special Grafting Grade	.35	2.50	20.00
2 to 3 feet, tr., br.	2.50	20.00	....
3 to 4 feet, tr., br.	4.00	35.00	....
4 to 5 feet, tr., br.	6.50	60.00	....
5 to 6 feet, tr., br.	10.00	80.00	....
6 to 8 feet, tr., br.	12.50	100.00	....
8 to 10 feet, tr., br.	15.00	125.00	....

CORNUS FLORIDA ALBA. Double White Dogwood.

4 to 5 feet, tr., bare root	15.00	....	....
4 to 5 feet, tr., B&B	17.50	....	....

CORNUS FLORIDA RUBRA. Pink-flowering Dogwood.

4 to 5 feet, bare root	17.50	150.00	....
4 to 5 feet, B&B	20.00	175.00	....
5 to 6 feet, bare root	20.00	175.00	....
5 to 6 feet, B&B	25.00	225.00	....
6 to 8 feet, bare root	25.00	....	....
6 to 8 feet, B&B	32.50	....	....

FAGUS AMERICANA. American Beech.

4 to 6 inch, s.	....	.50	4.00
6 to 12 inch, s.	.10	.70	6.00
12 to 18 inch, s.	.15	1.00	8.00
18 to 24 inch, s.	.25	1.50	12.00
2 to 3 feet, s.	.30	2.00	15.00

WHOLESALE PRICE LIST

	Per 10	Per 100	Per 1000
FRAXINUS AMERICANA. White Ash.			
FRAXINUS LANCEOLATA. Green Ash.			
6 to 12 inch, s.	....	$0.40	$ 3.00
12 to 18 inch, s.	$0.10	.60	5.00
18 to 24 inch, s.	.15	1.00	7.00
2 to 3 feet, s.	.20	1.25	10.00
3 to 4 feet, s.	.30	2.00	15.00
4 to 5 feet, s.	1.50	10.00	....
GINKGO BILOBA. Maidenhair Tree.			
4 to 6 inch, s.	.55	4.50	....
6 to 9 inch, s.	.65	5.50	....
9 to 12 inch, s.	.75	6.50	....
12 to 18 inch, s.	1.25	10.00	....
18 to 24 inch, s.	2.00	15.00	....
GLEDITSIA TRIACANTHOS. Honey Locust.			
4 to 6 inch, s.	....	.40	3.00
6 to 12 inch, s.	....	.65	5.00
12 to 18 inch, s.	.20	1.25	10.00
18 to 24 inch, s.	.25	2.00	15.00
GYMNOCLADUS DIOICUS. Kentucky Coffee Tree.			
18 to 24 inch, tr.	1.50	12.00	....
2 to 3 feet, tr.	2.00	15.00	....
3 to 4 feet, tr.	3.50	30.00	....
HICORIA LACINIOSA. Shellbark Hickory.			
HICORIA OVATA. Shagbark Hickory.			
4 to 6 inch, s.	.35	2.50	20.00
6 to 12 inch, s.	.40	3.50	30.00
18 to 24 inch, s.	1.50	12.50	100.00
2 to 3 feet, s.	3.00	20.00	125.00
3 to 4 feet, s.	6.00	50.00	....
JUGLANS CINEREA. Butternut.			
6 to 12 inch, s.	.30	2.00	15.00
12 to 18 inch, s.	.40	2.50	20.00
18 to 24 inch, s.	.50	3.00	25.00
JUGLANS NIGRA. Black Walnut.			
6 to 12 inch, s.	.30	2.00	15.00
12 to 18 inch, s.	.40	2.50	20.00
18 to 24 inch, s.	.50	3.00	25.00
2 to 3 feet, s.	.60	4.00	35.00
KOELREUTERIA PANICULATA. Golden-rain Tree.			
3 to 4 feet, tr.	6.00	....	....
4 to 5 feet, tr.	7.50	....	....
5 to 6 feet, tr.	10.00	....	....
LIRIODENDRON TULIPIFERA. Tulip Tree.			
4 to 6 inch, s.	....	.60	5.00
6 to 12 inch, s.	.15	.80	7.00
12 to 18 inch, s.	.20	1.25	10.00
18 to 24 inch, s.	.25	1.50	12.00
2 to 3 feet, s.	.30	2.00	15.00
3 to 4 feet, s.	.40	3.00	25.00
2 to 3 feet, tr.	2.00	15.00	....
3 to 4 feet, tr.	3.00	25.00	....
4 to 5 feet, tr.	3.50	30.00	....
5 to 6 feet, tr.	4.50	40.00	....
6 to 8 feet, tr.	6.50	60.00	....
1¼ to 2-inch caliper.	15.00	120.00	....
(COST OF B&B TO BE ADDED.)			
MAGNOLIA TRIPETALA. Umbrella Magnolia.			
2 to 3 feet, tr., br.	2.50	20.00	....
3 to 4 feet, tr., br.	3.50	30.00	....
4 to 5 feet, tr., br.	4.50	40.00	....
5 to 6 feet, tr., br.	5.50	50.00	....
6 to 8 feet, tr., br.	7.00	60.00	....
OXYDENDRUM ARBOREUM. Sourwood.			
6 to 12 inch, s.	.20	1.25	10.00
12 to 18 inch, s.	.25	1.50	12.00
PLATANUS OCCIDENTALIS. American Plane Tree.			
1¼ to 1½-inch caliper.	10.00	....	....
1½ to 2-inch caliper.	15.00	....	....
2 to 3-inch caliper.	20.00	....	....
POPULUS NIGRA ITALICA. Lombardy Poplar.			
6 to 12 inch, c.	.20	1.25	10.00
12 to 18 inch, c.	.30	2.00	15.00
18 to 24 inch, s.	.35	2.50	20.00
2 to 3 feet, c.	.40	3.00	25.00
3 to 4 feet, c.	.50	4.00	35.00
4 to 5 feet, 2-yr., c., light br.	.60	5.00	45.00
5 to 6 feet, 2-yr., c., light br.	.80	7.00	60.00
4 to 5 feet, tr.	1.50	12.00	....
5 to 6 feet, tr.	2.25	18.00	....
6 to 8 feet, tr.	3.00	25.00	....
8 to 10 feet, tr.	3.50	30.00	....
PRUNUS AMERICANA. American Plum.			
3 to 4 feet, tr.	.80	5.50	....
4 to 5 feet, tr.	1.00	8.00	....
5 to 6 feet, tr.	1.25	10.00	....
PRUNUS SEROTINA. Wild Cherry.			
18 to 24 inch, s.	.35	2.50	20.00
2 to 3 feet, s.	.40	3.00	25.00
3 to 4 feet, s.	.50	4.00	30.00
4 to 5 feet, s.	1.00	8.00	70.00
PTELEA TRIFOLIATA. Hop Tree.			
4 to 6 inch, s.	.40	3.00	....
6 to 12 inch, s.	.50	4.00	....
12 to 18 inch, s.	.60	5.00	....
18 to 24 inch, tr.	1.00	8.00	....
2 to 3 feet, tr.	1.25	10.00	....
3 to 4 feet, tr.	2.00	15.00	....
4 to 5 feet, tr.	3.00	25.00	....
ROBINIA PSEUDOACACIA. Black Locust.			
4 to 6 inch, s.	..	.40	3.00
6 to 12 inch, s.	..	.50	4.00
12 to 18 inch, s.	.10	.70	6.00
18 to 24 inch, s.	.15	1.00	7.00
2 to 3 feet, s.	.20	1.25	9.00
3 to 4 feet, s.	.25	1.50	12.00
4 to 5 feet, s., br.	.35	3.00	25.00
5 to 6 feet, s., br.	.60	5.00	40.00
6 to 8 feet, s., br.	1.25	10.00	80.00
SALIX VITELLINA. Golden Willow.			
6 to 12 inch, c.	$0.20	$ 1.25	$10.00
12 to 18 inch, c.	.30	2.00	15.00
18 to 24 inch, c.	.35	2.50	20.00
SORBUS AUCUPARIA. European Mountain Ash.			
4 to 5 feet	5.00	...	....
5 to 6 feet	6.00	...	....
6 to 8 feet	8.00	...	....
SOPHORA JAPONICA. Chinese Scholar's Tree.			
12 to 18 inch, s.	1.00	8.00	....
18 to 24 inch, s.	1.25	10.00	....
2 to 3 feet, s.	2.00	15.00	....
3 to 4 feet, s.	3.00	25.00	....
TAXODIUM DISTICHUM.			
4 to 5 feet, tr.	6.00	...	....
5 to 6 feet, tr.	8.00	...	....
6 to 8 feet. tr.	10.00	...	....
ULMUS AMERICANA. American Elm.			
5 to 6 feet, tr.	3.50	30.00	....
6 to 8 feet, tr.	6.00	50.00	....
8 to 10 feet, tr.	6.50	60.00	....
ULMUS PUMILA. Chinese Elm.			
12 to 18 inch, s.	.15	1.00	8.00
18 to 24 inch, s.	.20	1.25	10.00
2 to 3 feet, s.	.30	2.00	15.00
3 to 4 feet, s.	.40	2.50	20.00
4 to 5 feet, s., br.	.60	3.00	25.00
5 to 6 feet, s., br.	.70	5.00	40.00
5 to 6 feet, tr.	5.00	35.00	....
6 to 8 feet, tr.	6.00	50.00	....
8 to 10 feet, tr.	7.00	60.00	....
2 to 2½-inch caliper.	15.00	....	....
2½ to 3-inch caliper.	25.00	....	....
3 to 3½-inch caliper.	30.00	....	....

VINES and CREEPERS

	Per 10	Per 100	Per 1000
AMPELOPSIS QUINQUEFOLIA. American Ivy.			
4 to 6 inch, s.	$0.30	$2.00	$15.00
6 to 12 inch, s.	.35	2.50	20.00
12 to 18 inch, 1-yr.	.50	4.00	30.00
12 to 18 inch, tr.	.80	7.00	60.00
BIGNONIA CAPREOLATA. Cross Vine. Evergreen.			
1-yr. No. 1, L.O., 8 to 12 in.	.35	2.50	20.00
1-yr. No. 2, L.O., 4 to 8 in.	.30	2.00	15.00
BIGNONIA RADICANS. Trumpet Creeper.			
6 to 12 inch, 1-yr., s.	.20	1.25	10.00
12 to 18 inch, 1-yr., s.	.25	2.00	15.00
CELASTRUS ORBICULATA			
6 to 12 inch, s.	.30	2.00	15.00
12 to 18 inch, s.	.40	2.50	20.00
18 to 24 inch, s.	.50	3.00	25.00
CELASTRUS SCANDENS. American Bittersweet.			
6 to 12 inch, c., fruiting.	.35	2.50	20.00
12 to 18 inch, c., fruiting.	.40	3.00	25.00
18 to 24 inch, c., fruiting.	.45	3.50	30.00
12 to 18 inch, tr., br.	.55	4.50	40.00
18 to 24 inch, tr., br.	.65	5.50	50.00
2 to 3 feet, tr., br.	.75	6.50	60.00
HEDERA GRACILIS. English Ivy. Small Leaf.			
3-inch pot plants.	2.00	15.00	....
HEDERA HELIX. English Ivy. Large Leaf.			
3-inch pot plants.	2.00	15.00	....
LONICERA JAPONICA HALLIANA. Hall Japanese Honeysuckle.			
Small lining-out	..	.70	6.00
Medium lining-out	..	1.00	8.00
2-yr., tr., No. 2	.53	4.50	40.00
2-yr., tr., No. 3	.45	3.50	30.00
LONICERA SEMPERVIRENS. Scarlet Trumpet Honeysuckle.			
Small Lining-out	.30	1.50	12.00
Medium lining-out	.35	2.00	15.00
VINCA MINOR. Common Periwinkle.			
Medium lining-out	.10	.70	6.00
Heavy lining-out	.15	1.00	8.00
VITIS AESTIVALIS. Summer Grape.			
VITIS CORDIFOLIA. Winter Grape.			
6 to 12 inch, s.	.30	2.00	15.00
12 to 18 inch, s.	.35	2.50	20.00
18 to 24 inch, s.	.40	3.00	25.00
VITIS ROTUNDIFOLIA. Muscadine.			
6 to 12 inch, 2-yr., s., No. 3	.30	2.00	15.00
12 to 18 inch, 2-yr., s., No. 2	.35	2.50	20.00
18 to 24 inch, 2-yr., s., No. 1	.40	3.00	25.00
12 to 18 inch, 2-yr., br.	.70	6.00	....
18 to 24 inch, 2-yr., br.	1.00	8.00	....
WISTARIA CHINENSIS BLUE.			
WISTARIA CHINENSIS WHITE.			
WISTARIA FRUTESCENS. American Wistaria. Seedling Type.			
Grafting size, ¼-inch and up	.60	5.00	45.00
Grafting size, 3/16 to ¼-inch	.50	4.50	40.00
Grafting size, 2/16 to 3/16-inch	.40	3.50	30.00
18 to 24 inch, 2-yr.	.65	5.50	50.00
12 to 18 inch, 2-yr.	.60	5.00	45.00
6 to 12 inch, s.	.50	4.00	35.00
4 to 6 inch, s.	.35	3.00	25.00

EVERGREENS—CONIFERS

All stock offered is first-class, thrifty material and will please any customer. No old, overgrown stock offered. These prices include balling and burlapping. Ten (10) per cent discount on orders of 100 lots of one variety, one or assorted grades.

	Per Each	Per 10
ARBORVITAE. Thuja.		
—OCCIDENTALIS GLOBOSA. Globe Arborvitae.		
12 to 15 inch	$0.80	$ 6.50
15 to 18 inch	1.00	8.50
—OCCIDENTALIS. American Arborvitae. Dark Green.		
15 to 18 inch	.65	5.00
18 to 24 inch	.75	6.00
2 to 3 feet	.95	8.00
—OCCIDENTALIS HOVEYI. Hovey Compact Arborvitae.		
15 to 18 inch	.70	6.00
18 to 24 inch	.95	8.00
—OCCIDENTALIS PYRAMIDALIS. American Pyramid.		
18 to 24 inch	1.00	8.50
2 to 3 feet	1.15	10.00
3 to 4 feet	1.50	12.50
4 to 5 feet	2.00	17.50
—ORIENTALIS. Chinese Arborvitae. Seedling type. Well sheared, compact plants (Biota).		
18 to 24 inch	.70	6.00
24 to 30 inch	.80	7.00
30 to 36 inch	.90	8.00
3 to 4 feet	1.15	10.00
—ORIENTALIS AUREA NANA. Berckmans Golden (Biota).		
12 to 15 inch	.85	7.50
15 to 18 inch	1.10	10.00
18 to 24 inch	1.35	12.50
24 to 30 inch	1.65	15.00
30 to 36 inch	1.90	17.50
—ORIENTALIS BAKERI. Baker Arborvitae (Biota).		
24 to 30 inch	1.00	8.50
30 to 36 inch	1.10	10.00
3 to 4 feet	1.40	12.50
4 to 5 feet	1.75	15.00
—ORIENTALIS BIOTA BONITA.		
15 to 18 inch	1.00	8.50
18 to 24 inch	1.15	10.00
24 to 30 inch	1.50	12.50
—ORIENTALIS COMPACTA. Compact Arborvitae (Biota).		
15 to 18 inch	.85	7.50
18 to 24 inch	1.00	9.00
24 to 30 inch	1.25	11.00
30 to 36 inch	1.40	12.50
—ORIENTALIS EXCELSA. Biota Excelsa.		
18 to 24 inch	.90	7.50
24 to 30 inch	1.00	8.50
30 to 36 inch	1.25	10.00
3 to 4 feet	1.50	12.50
4 to 5 feet	2.00	15.00
CHAMAECYPARIS LAWSONIANA. Lawson Cypress.		
2 to 3 feet	1.25	10.00
3 to 4 feet	1.50	12.00
CHÁMAECYPARIS LAWSONIANA ALLUMI. Blue Lawson Cypress.		
18 to 24 inch	.85	7.00
2 to 3 feet	1.25	10.00
JUNIPERUS CHINENSIS COLUMNARIS. Column Chinese Juniper.		
24 to 30 inch	1.35	12.50
30 to 36 inch	1.60	15.00
3 to 4 feet	2.00	17.50
4 to 5 feet	2.50	22.50
5 to 6 feet	3.00	25.00
JUNIPERUS CHINENSIS PFITZERIANA. Pfitzer Juniper.		
15 to 18 inch	1.10	10.00
18 to 24 inch	1.35	12.50
24 to 30 inch	1.65	15.00
30 to 36 inch	2.00	17.50
JUNIPERUS CHINENSIS PFITZERIANA AUREA. Hill Golden Pfitzeriana.		
15 to 18 inch	1.10	10.00
18 to 24 inch	1.35	12.50
24 to 30 inch	1.65	15.00
JUNIPERUS COMMUNIS ASHFORDI. Ashford Juniper.		
18 to 24 inch	.80	7.00
24 to 30 inch	1.00	8.50
30 to 36 inch	1.25	10.00
3 to 4 feet	1.50	12.50
JUNIPERUS COMMUNIS CANADENSIS. Vase-shaped. Silvery-green foliage.		
15 to 18 inch	.60	4.50
18 to 24 inch	.75	6.00
24 to 30 inch	.90	7.50
30 to 36 inch	1.20	10.00

JUNIPERUS COMMUNIS DEPRESSA. Tamariscifolia. Prostrate Juniper.

	Per Each	Per 10
12 to 15 inch	$0.70	$ 6.00
15 to 18 inch	.85	7.50
18 to 24 inch	1.15	10.00

JUNIPERUS COMMUNIS DEPRESSA PLUMOSA. Andorra Juniper.

15 to 18 inch	.85	7.00
18 to 24 inch	1.00	8.50
24 to 30 inch	1.15	10.00
30 to 36 inch	1.40	12.50

JUNIPERUS COMMUNIS HIBERNICA. Irish Juniper.

18 to 24 inch	.75	6.00
24 to 30 inch	.90	8.00
30 to 36 inch	1.10	10.00
3 to 4 feet	1.35	12.50

JUNIPERUS COMMUNIS HIBERNICA FASTIGIATA. Columnar Irish Juniper.

18 to 24 inch	.85	7.50
24 to 30 inch	1.00	9.00
30 to 36 inch	1.35	12.00
3 to 4 feet	1.60	15.00

JUNIPERUS EXCELSA STRICTA. Spiny Greek Juniper.

12 to 15 inch	.75	6.50
15 to 18 inch	.90	8.00

JUNIPERUS SABINA. Savin Juniper.

15 to 18 inch	.90	8.00
18 to 24 inch	1.10	10.00
24 to 30 inch	1.40	12.50

JUNIPERUS VIRGINIANA. Red Cedar.

18 to 24 inch	.70	6.00
2 to 3 feet	1.00	9.00
3 to 4 feet	1.50	12.50

JUNIPERUS VIRGINIANA. Hill Dundee.

18 to 24 inch	1.40	12.50
2 to 3 feet	1.65	15.00
3 to 4 feet	2.25	20.00
4 to 5 feet	3.00	25.00

JUNIPERUS VIRGINIANA BURKI. Burk Juniper.

18 to 24 inch	1.40	12.50
24 to 30 inch	1.65	15.00
30 to 36 inch	2.25	20.00

JUNIPERUS VIRGINIANA CANAERTI. Canaert Red Cedar.

18 to 24 inch	1.40	12.50
24 to 30 inch	1.65	15.00
30 to 36 inch	2.00	17.50

JUNIPERUS VIRGINIANA GLAUCA. Blue Cedar.

18 to 24 inch	1.40	12.50
24 to 30 inch	1.65	15.00
30 to 36 inch	2.25	20.00

JUNIPERUS VIRGINIANA GLOBOSA. Globe Juniper.

12 to 15 inch	1.00	8.50
15 to 18 inch	1.15	10.00
18 to 24 inch	1.40	12.50

JUNIPERUS VIRGINIANA KETELEERI. Keteleer Juniper.

24 to 30 inch	1.65	15.00
30 to 36 inch	2.00	17.50
3 to 4 feet	3.00	25.00
4 to 5 feet	3.50	30.00

JUNIPERUS VIRGINIANA SMITHI. Smith Red Cedar.

18 to 24 inch	1.10	10.00
24 to 30 inch	1.35	12.50
30 to 36 inch	1.60	15.00
3 to 4 feet	2.25	20.00

PICEA CANADENSIS. White Spruce.

24 to 30 inch	1.40	12.50
30 to 36 inch	1.65	15.00
3 to 4 feet	2.00	17.50

PICEA EXCELSA. Norway Spruce.

30 to 36 inch	1.75	15.00
3 to 4 feet	2.25	20.00
4 to 5 feet	3.00	25.00

PINUS NIGRA (Austrian Pine).

PINUS SYLVESTRIS (Scotch Pine).

18 to 24 inch	.85	7.00
2 to 3 feet	1.25	10.00

RETINOSPORA FILIFERA. Thread Retinospora.

RETINOSPORA PISIFERA.

RETINOSPORA PLUMOSA. Green Retinospora.

RETINOSPORA PLUMOSA AUREA. Golden Plume Retinospora.

15 to 18 inch	.75	6.00
18 to 24 inch	.90	7.50
24 to 30 inch	1.00	9.00
30 to 36 inch	1.15	10.00
3 to 4 feet	1.40	12.50

RETINOSPORA SQUARROSA VEITCHI. Blue Moss Color.

15 to 18 inch	.65	5.00
18 to 24 inch	.80	6.50
2 to 3 feet	1.00	8.50
3 to 4 feet	1.25	10.00

TSUGA CANADENSIS. Canadian Hemlock.

18 to 24 inch	1.50	12.50
24 to 30 inch	1.75	15.00
3 to 4 feet	3.00	25.00

(Sold only in connection with equal amount of other finished Evergreens.)

EVERGREENS—BROADLEAF

All items offered are nice, clean, thrifty stock in first-class condition. No old, overgrown stock offered. These prices include balling and burlapping except where noted. Ten (10) per cent discount allowed on orders of 100 lots of one variety, one or assorted grades, on items not offered 100 lots.

ABELIA GRANDIFLORA. Glossy Abelia.

	Per Each	Per 10	Per 100
12 to 18 inch, bare root	$0.25	$2.00	$15.00
18 to 24 inch, bare root	.30	2.25	20.00
18 to 24 inch, B&B	.40	3.25	30.00
2 to 3 feet, bare root	.40	3.25	30.00
2 to 3 feet, B&B	.55	5.00	45.00
3 to 4 feet, bare root	.55	5.00	45.00
3 to 4 feet, B&B	.75	7.00	65.00

BUXUS SEMPERVIRENS. Common Bush Form Boxwood. Compact, well filled.

6 to 8 inch, bare root	.35	3.00	25.00
8 to 10 inch, bare root	.50	4.50	40.00
10 to 12 inch, bare root	.70	6.50	60.00
12 to 15 inch, bare root	.90	10.00	.....
12 to 15 inch, B&B	1.35	12.00	.....
15 to 18 inch, B&B	1.75	16.00	.....

BUXUS SUFFRUTICOSA. Old English True Dwarf Boxwood. Compact, well filled.

4 to 6 inch, bare root	.50	4.00	.....
6 to 8 inch, bare root	.60	5.00	.....
8 to 10 inch, bare root	.90	8.00	.....
10 to 12 inch, bare root	1.25	10.00	.....

(Cost of B&B to be added if wanted balled.)

COTONEASTER MICROPHYLLA. Rockspray Cotoneaster.

18 to 24 inch	1.35	12.50	.....
24 to 30 inch	1.60	15.00	.....
30 to 36 inch	2.10	20.00	.....

CYTISUS SCOPARIUS. Scotch Broom.

2 to 3 feet, bare root	.50	4.00	.....
2 to 3 feet, B&B	.75	6.00	.....
3 to 4 feet, bare root	.75	6.00	.....
3 to 4 feet, B&B	.90	7.50	.....

ELAEAGNUS FRUITLANDI.

ELAEAGNUS PUNGENS REFLEXA.

2 to 3 feet	1.15	9.00	.....
3 to 4 feet	1.25	10.00	.....
4 to 5 feet	1.50	12.00	.....

EUONYMUS BUNGEANUS (SIEBOLDIANUS). Winterberry Euonymus.

EUONYMUS PATENS. Spreading Euonymus.

12 to 18 inch	.75	6.00	.....
18 to 24 inch	.85	7.00	.....
2 to 3 feet	.95	8.00	.....

EUONYMUS JAPONICUS. Evergreen Euonymus.

12 to 18 inch	.50	4.00	.....
18 to 24 inch	.75	6.00	.....
2 to 3 feet	.90	7.50	.....

EUONYMUS RADICANS. Wintercreeper.

EUONYMUS RADICANS ACUTUS. Sharpleaf Wintercreeper.

12 to 18 inch	.60	5.00	.....
18 to 24 inch	.70	6.00	.....
2 to 3 feet	.90	7.50	.....

EUONYMUS RADICANS CARRIEREI. Glossy Wintercreeper.

EUONYMUS RADICANS COLORATUS. Spreading Wintercreeper.

8 to 12 inch, bare root	.15	1.25	10.00
12 to 15 inch, bare root	.20	1.50	12.50
15 to 18 inch, bare root	.25	2.00	15.00
18 to 24 inch, bare root	.30	2.50	20.00

ILEX OPACA. American Holly. (Standard or Bush Form.)

3 to 4 feet	1.75	15.00	.....
4 to 5 feet	3.00	27.50	.....
5 to 6 feet	4.00	37.50	.....
6 to 8 feet	5.00	47.50	.....
8 to 10 feet	7.00	65.00	.....

ILEX VOMITORIA. Yaupon.

18 to 24 inch	.90	7.50	.....
2 to 3 feet	1.25	10.00	.....
3 to 4 feet	1.75	15.00	.....
4 to 5 feet	2.50	20.00	.....

LAUROCERASUS CAROLINIANA. Cherry Laurel. (Nice, young stock. Well filled, compact plants.)

3 to 4 feet	1.15	10.00	.....
4 to 5 feet	1.50	12.50	.....
5 to 6 feet	1.75	15.00	.....
6 to 8 feet	2.00	17.50	.....

LIGUSTRUM JAPONICUM. Japanese Privet. (Upright).

4 to 5 feet	.70	6.00	.....
5 to 6 feet	.80	7.00	.....

MAGNOLIA GRANDIFLORA. Southern Magnolia.

18 to 24 inch	1.15	10.00	.....
2 to 3 feet	1.75	15.00	.....
3 to 4 feet	2.25	20.00	.....
4 to 5 feet	3.50	30.00	.....

MAHONIA AQUIFOLIUM. Oregon Hollygrape.

	Per Each	Per 10	Per 100
15 to 18 inch	$0.90	$ 7.50	.....
18 to 24 inch	1.25	10.00	.....
24 to 30 inch	1.50	12.50	.....
30 to 36 inch	1.75	15.00	.....

NANDINA DOMESTICA.

	Per Each	Per 10
12 to 18 inch	$0.60	$ 5.00
18 to 24 inch	.75	6.00
2 to 3 feet	1.00	8.00
3 to 4 feet	1.25	10.00

PYRACANTHA COCCINEA LALANDI. Laland Firethorn.

18 to 24 inch	.90	7.50
2 to 3 feet	1.00	8.50
4 to 5 feet	2.50	20.00
5 to 6 feet	3.00	25.00

LINING-OUT EVERGREENS

The lining-out evergreens offered are all well rooted, nice, clean, thrifty plants, up-to-grade and not to be classed with rooted cuttings from sand beds. If you are interested in sand bed rooted cuttings, send us your want list. We advise sending orders early for shipment when you are ready. Samples will be sent on request for your approval on orders booked.

ABELIA GRANDIFLORA. Glossy Abelia.

	Per 10	Per 100	Per 1000
9 to 12 inch, c.	$0.85	$ 7.00	.....
12 to 15 inch, c.	1.25	10.00	.....
15 to 18 inch, c.	1.50	12.50	.....

ARBORVITAE. Thuja.

—ORIENTALIS AUREA NANA. Berckmans Golden (Biota).

6 to 9 inch, tr.	1.60	14.00	.....
9 to 12 inch, tr.	2.25	18.00	.....
12 to 15 inch, tr.	2.50	22.50	.....

—ORIENTALIS BAKERI. Baker Arborvitae (Biota).

9 to 12 inch, tr.	1.90	16.00	.....
12 to 15 inch, tr.	2.30	20.00	.....

—ORIENTALIS BIOTA BONITA.

9 to 12 inch, tr.	2.00	17.50	.....
12 to 15 inch, tr.	2.50	20.00	.....

—ORIENTALIS EXCELSA. Biota Excelsa.

9 to 12 inch, tr.	1.70	14.00	.....
12 to 15 inch, tr.	1.90	16.00	.....
15 to 18 inch, tr.	2.30	20.00	.....

BUXUS ARBORESCENS. Tree Boxwood.

BUXUS ROTUNDIFOLIA. Roundleaf Boxwood.

4 to 6 inch, 2-yr., bed-grown	.75	6.00	.....
6 to 9 inch, 2-yr., bed-grown	.90	7.50	.....
9 to 12 inch, 2-yr., bed-grown	1.25	10.00	.....

BUXUS SEMPERVIRENS. Boxwood.

6 to 9 inch, 2-yr., L. O.	1.25	10.00	.....
9 to 12 inch, 2-yr., L. O.	1.50	12.00	.....

BUXUS SUFFRUTICOSA. Old English Dwarf Boxwood.

4 to 6 inch, cuttings	1.25	10.00	.....
6 to 9 inch, cuttings	1.50	12.00	.....
9 to 12 inch, cuttings	2.00	15.00	.....

ILEX OPACA. American Holly.

9 to 12 inch, tr.	1.50	12.00	.....
12 to 18 inch, tr.	2.00	15.00	.....
18 to 24 inch, tr.	2.50	20.00	.....
2¼-inch pots	2.00	18.00	.....
3-inch pots	2.50	22.00	.....

JUNIPERUS CHINENSIS PFITZERIANA. Pfitzer Juniper.

2¼-inch pots	1.50	12.00	$100.00
6 to 9 inch, tr.	1.75	15.00	.....
9 to 12 inch, tr.	2.50	20.00	.....
12 to 15 inch, tr.	3.00	25.00	.....

JUNIPERUS COMMUNIS HIBERNICA. Irish Juniper.

9 to 12 inch, tr.	2.00	15.00	.....
12 to 15 inch, tr.	2.25	18.00	.....

LAUROCERASUS CAROLINIANA. Cherry Laurel.

9 to 12 inch, s.	.50	4.00	.....
12 to 18 inch, s.	.60	5.00	.....
18 to 24 inch, s.	.80	7.00	.....

MAGNOLIA GRANDIFLORA. Southern Magnolia.

12 to 18 inch, s.	2.50	20.00	.....
18 to 24 inch, s.	3.00	25.00	.....

TSUGA CANADENSIS. Canadian Hemlock.

4 to 6 inch, tr.	1.00	8.00	70.00
6 to 9 inch, tr.	1.50	12.00	100.00
9 to 12 inch, tr.	1.90	14.00	120.00
2¼-inch pots, 4 to 6 inch	1.25	10.00	90.00
2¼-inch pots, 6 to 9 inch	1.90	14.00	120.00
2¼-inch pots, 9 to 12 inch	2.10	17.00	150.00
3-inch pots	2.50	22.50	200.00



CHARLIE CHESTNUT



The Suitcase Mystery

The word got around the convention in Chicago last January, at least some of the members heard, that the convention was going to move to a different hotel. Like most rumors there was a grain of truth in it, but it was only a small part of the convention, in fact, it was only Emil himself that was involved in that proposal, for reasons which have never been thoroughly explained, and which I now have Emil's permission to report to the members in some detail. "The members have got a right to know," says Emil, "You can go ahead and bring the facts right out in the open." That is how it comes that I am now going to bring this incident to your attention.

I would like to have it understood at the beginning that I am neutral. I am not saying yes or no. The members can draw their own conclusions, knowing Emil as they do.

There are some people in the world who always seem to have a natural and special ability to stir up trouble for themselves. I don't mean to say that Emil is a trouble-maker, but it seems like he is forever putting his foot into it. Like the time out home when we was down to Red's filling station some years ago, chewing the rag about one thing and another, when the discussion got around to automobiles, and whether Fords or Chevies were putting out the most weight per dollar. Emil claimed he could lift one front corner of a Ford, which he proceded to do with a car that was parked there. When he dropped it down again, he had a stitch in his side and one of the steering knuckles on the car slipped off. That cost him $14.00 and a lot of embarrassing explanation. I only mention that incident just to show how he has a tendency to run into trouble.

But to get back to the incident at the hotel. The uproar started just as soon as me and Emil got inside the front door of the hotel. You know how it is when you walk into the hotel, if you have a suitcase in your hand. Seems like one of the rules of the hotel is for one of the help to run out and grab your suitcase out of your hand, taking you along with it, if you aint quick enough to let go. They call it "service". Emil couldn't ever get used to that trick. He says, "Here I carried that suitcase all the way from home without getting a rupture, and I can carry it the rest of the fifteen or twenty feet up to the desk." That is the way Emil always looked at it.

That morning me and Emil took the 7:20 out of Riverbend. It was a Monday morning, the day that the convention was getting already to open up. We got to the hotel just about the time some of the members that got in the night before was just going to bed. I never take any suitcase myself, as I always have to run out home every night to take care of the horse, and if I do get a chance to stay in, it aint no trick to get by for a day or so without any suitcase. But Emil always brings a suitcase.

As I was saying, we got to the hotel and Emil was carrying his suitcase, when just inside the door one of the bell boys rushed him, sort of got him unawares and made a grab for his suitcase. Emil hung on and in the tussle the handle busted and the suitcase went to the bell boy, who took it on a dog trot, just like one of the Chicago Bears heading for a touchdown, and dropped it down between the goal posts, so to speak, right in front of the desk.

There would have been a big argument right there on the spot except it so happened that John Bushbottom was just coming out of the elevator and run into me and Emil. John give Emil a slap on the back just as Emil started to yell at the bell boy, so he had his mouth wide open and his lower plate popped out and scooted along the floor with Emil after it. Fortunately, there was no damage done. "Better put a string on them clickers, Emil, or else keep your mouth shut," John said.

"Its them bell boys grabbing a persons suitcase that way. Im going to take it up with the manager. Well, John, how are you," says Emil, recovering his equilibrium a little.

Emil would have gone right up to the desk to see about a room, but John got his mind off it for a moment when he invited us in for breakfast. We hadn't had a thing to eat since five, and as Emil is never one to pass up a free meal, we made

THANK YOU . . .

We appreciate your generous response to our lining-out and specimen plant offer in the February 15 and March 1 issues of the American Nurseryman.

KOSTER NURSERY,
Seabrook Farms,
Bridgeton, N. J.

C. Courtney Seabrook John Vermullen Edgar Joyce

HARRISON-GROWN
HIGH QUALITY APPLE TREES
Budded — True to Name

We will need a very large percentage of Harrison-grown Apple trees for our Spring 1944 retail orders for commercial orchardists and Victory Gardeners.

We have several thousand apple trees to offer to our fellow nurserymen at Wholesale prices of the following varieties:

BRIGHT RED JONATHAN
Early McIntosh
Early Red Duchess
Hyslop Crab
JONATHAN
LARGE TRANSPARENT (Lodi)
Lobo
McINTOSH RED
Milton
Macoun
Red Gravenstein
RED SPY
Rhode Island Greening
RED ROME BEAUTY
Stayman Winesap
SCARLET RED STAYMAN
SUPER RED McINTOSH
Turley
Transcendent Crab
Twenty Ounce
TRIPLE RED DELICIOUS
Wealthy
Young America Crab
YELLOW TRANSPARENT
YELLOW DELICIOUS

2-year, budded, 6 to 7 feet, 7/8 to 1-inch caliper.
2-year, budded, 5 to 6 feet, 1 to 7/8-inch caliper.
2-year, budded, 4 to 5 feet, 7/8 to 1-inch caliper.
2-year, budded, 3 to 4 feet, 7/8 to 7/8-inch caliper.
Most of the aforementioned Apple Trees run in the two large sizes.

We can also suppiy a limited quantity of Apple Trees in the JUMBO and MAMMOTH size, which will run 6 to 8 feet, 8 to 10 feet and 10 to 12 feet. These are ideal trees for Victory Gardens.

Harrison-grown SOUR CHERRY TREES
High Quality — Budded — True to Name

Can supply a few hundred MONTMORENCY at Wholesale prices in the following sizes:

2-year, budded, 3 to 4 feet, 7/8 to 7/8-inch caliper.
2-year, budded, 2 to 3 feet, 7/8 to 7/8-inch caliper.
2-year, budded, 1 to 2 feet, 1/4 to 7/8-inch caliper.

Kindly submit Want List by wire or letter, stating number of fruit trees of each variety with size or sizes desired for Wholesale quotations.

Harrison-grown PLUM TREES
High Quality — Budded — True to Name

Can supply a few hundred Plums at wholesale prices of the following varieties:

ABUNDANCE
Bradshaw
BURBANK
Fellenberg (Italian Prune)
RED JUNE
SANTA ROSA
SHROPSHIRE-DAMSON
Stanley Prune
WICKSON

1-year, budded, 3 to 4 feet, 7/8 to 1 1/8-inch caliper
1-year, budded, 2 to 3 feet, 7/8 to 7/8-inch caliper
1-year, budded, 1 to 2 feet, 1/4 to 7/8-inch caliper

Mary Washington ASPARAGUS ROOTS, 2-yr., No. 1 Grade

Can make immediate shipment, or whatever time you desire during Spring 1944.
Terms—Freight Draft or C.O.D. and Express C.O.D.

HARRISON BROTHERS NURSERIES
Founded 1884 **Berlin, Maryland** *C. Hale Harrison, General Manager*

our way into the coffee shop. In usual convention procedure, Emil was already building himself up for an attack of indigestion by eating two breakfasts the first day.

"Have you got your counts in yet on two year honeysuckle, Emil," John says. "I might want to make a trade for some."

"Ive got all my figures in my suitcase, John," Emil says, "Ill see you after I get my room and get my stuff out."

We finished off an order of kippered herring and fried potatoes, and after a few well guarded remarks about business and prices we went out into the lobby and up to the desk, or I should say up toward the desk. There was a crowd of people including some nurserymen milling around the desk, like farmers around the free lunch at a country auction. A person couldn't get within the length of a wagon box from the counter, and to add to the confusion, there was a pile of baggage stacked up there that wouldn't go in a ton and a half truck. Little by little the line worked down and different nurserymen came by and talked to Emil, asking him what he had in honeysuckle, etc., and he told them all they could see him in a few minutes as soon as he got his room and got his papers out of his suitcase. After about an hour and twenty minutes Emil was up there face to face with the head man of the hotel. As usual, Emil didn't have a reservation, so he was told politely to come back in about an hour and see if anything turned up.

Naturally, Emil was very indignant and said, "I'll see the manager about this. I have been coming to this convention for years, and furthermore, don't try to slip me one of those $3.00 rooms. The most I have ever paid is $1.50."

By that time four or five other

people had crowded up to the desk, so Emil was pushed aside not too gently and found himself out to the edge of the crowd. "They cant get away with that with me, Charlie," he says to me. "Get our suitcase, Charlie, and we will go to a different hotel. This aint the only hotel in town. We'll go to the Y.M.C.A. again, Charlie, so get the suitcase and we'll get out of this joint."

All the time we had been standing there, a continual pulling and hauling was going on around that pile of baggage. Some of the customers was checking out for Dubuque or Peoria or someplace else, and there were others coming in, so the pile of baggage got bigger all the time. I started to look for the suitcase. Usually it aint hard to find. If you have ever been to a convention, you have seen that suitcase and you would never forget it. Emil's wife's sister bought it in 1904 when she went to the World's Fair in St. Louis. When it was new, it probably set her back $2.98 at the most. Although, as a matter of fact, I think she got it for a premium for buying laundry soap. Emil just naturally fell into it when he found it up in the attic some years afterward. It was made of straw or rattan, and was at one time more or less straw color, but now to put it mildly it has weathered out some. On the corners are patches of brown leather. The handle wore out years ago, but Emil made a handle out of a piece of tug from a single harness. It has two straps, one around each end that Emil made out of a bridal strap, which he fastened together with harness rivits. It was bulged out on one side and sunk in on the other, and it would have brought 10 cents at a rummage sale, provided there was something in it of value.

As I was saying, I started to look for it, moving a lot of baggage back and forth until I could see it wasn't in the pile any place. Then I started to reconnoiter around the lobby, looking behind all the chairs and pillars and potted palms. I think the house detective had his eye on me, as I was making quite a thorough investigation in all the possible hiding places in the lobby, but I simply couldn't find it, and to add to the difficulty I couldn't find Emil either. I had an idea where to look for him, however, and I was right. He was already in the bar. Several of the nurserymen were crowded around, trying to make trades with him, and Emil was still without his grade count and price book, and the old boy was pretty well flustered when I turned up.

"Emil," I says, "I have spent all the forenoon looking for that suitcase, and so far as I can see it has just vanished into thin air. It aint in the lobby anyplace. Now what do you want to do? The last time I saw it was when the bell boy grabbed it, and I cant tell what bell boy it was, as they all got the same kind of coat and pants on."

Emil's fist came down on the bar with a bang that rattled the glasses all along the bar. "Charlie," he says, "if this hotel has stolen that suitcase there will be a commotion raised around here that they will never forget. I will go to work and sue them for damages. Come on, Charlie, I will get some action around here. I'll take it up with the manager." And with that outburst we worked our way out of the bar, and after a hasty look over the baggage just to satisfy himself, we walked over toward the manager's office.

"Maybe the hotel dont figure they are responsible for that suitcase, Emil," I says. "After all there are thousands of people going in and out of here and anybody could walk out with a suitcase, but why they would pick that one is beyond me. Unless, of course, someone like John Bushbottom would try to take it to get your figures on the honeysuckle and any other information he could pick up from your price book."

That was an angle which had not occurred to Emil, but he was a little skeptical of that possibility. He was always one to "stand up for his rights" as the members well know.

EVERGREEN GRAFTS

Only a few of the many varieties still available—but hurry!

Juniper Burki
Juniper Canaerti
Juniper Dundee
Juniper Globosa
Juniper Columnaris
Juniper Keteleeri
Juniper Mascula
Juniper Femina
Biota Burtoni

All $30.00 per 100

Out of 2½-in. rose pots, grafted on transplanted juniper understocks.

See our latest two-color spring list of liners and finished stock.

Write today.

BURTON'S HILL TOP NURSERIES
Casstown, Ohio

SURPLUS STOCK FOR EARLY SPRING SHIPMENT

We offer the following seedlings and shrubs for immediate sale and shipment. All stock will be fresh dug and shipped at earliest possible date after receipt of order. Boxing and packing at cost—F.O.B. McMinnville, Tennessee.

CORNUS FLORIDA — White-flowering Dogwood

Beautiful native tree which produces large single white flowers in early spring, with red berries in fall and winter. A valuable small size tree.

	Per 100	Per 1000
4 to 6 ins., S.	$ 1.00	$ 6.00
6 to 12 ins., S.	1.50	8.00
12 to 18 ins., S.	2.00	12.50
18 to 24 ins., S.	3.00	15.00
Grafting grade, S.	3.00	15.00
2 to 3 ft., S.	3.50	25.00
3 to 4 ft., S.	5.00	45.00
3 to 4 ft., branched	25.00	....
4 to 5 ft., branched	50.00	....
5 to 6 ft., branched	75.00	....

ACER DASYCARPUM, Silver Maple

Fastest growing of all the maples. Foliage light green, silvery on the underside.

6 to 12 ins., S.	$0.75 $ 5.00
12 to 18 ins., S.	1.00 8.00
18 to 24 ins., S.	1.25 10.00
2 to 3 ft., S.	2.00 15.00
3 to 4 ft., S.	3.00 25.00
4 to 5 ft., S.	4.50 40.00

CERCIS CANADENSIS, Redbud

Medium-size ornamental flowering tree. Reddish-purple blooms appear before leaves.

4 to 6 ins., S.	$0.75 $ 6.00
6 to 12 ins., S.	1.25 10.00
12 to 18 ins., S.	1.75 15.00
18 to 24 ins., S.	2.25 20.00

HARDY FLOWERING SHRUBS

ALTHAEA HIBISCUS, Rose of Sharon Seedlings

The seedling type is used mostly for budding and grafting special varieties of Althaeas.

4 to 6 ins., S.	$0.40 $ 3.00
6 to 12 ins., S.	.60 5.00
12 to 18 ins., S.	1.00 7.50
18 to 24 ins., S.	1.25 10.00
Grafting grade, S.	1.25 10.00

CALYCANTHUS FLORIDUS, Sweet Shrub

A very beautiful shrub with double chocolate-colored blooms; sweet-scented and very fragrant.

4 to 6 ins., S.	$1.50 $10.00
6 to 12 ins., S.	2.00 15.00
12 to 18 ins., S.	3.00 25.00
18 to 24 ins., S.	4.00 30.00

CYDONIA JAPONICA, Flowering Quince Seedlings

This is another type of seedling shrub. These usually have pink blooms and are very attractive.

4 to 6 ins., S.	$1.25 $10.00
6 to 12 ins., S.	2.00 15.00
12 to 18 ins., S.	2.25 20.00
18 to 24 ins., S.	3.00 25.00

HIBISCUS, The Rose Mallow

Mallow Marvels, mixed colors: A beautiful perennial plant.

1-yr., S., No. 1	$1.25 $10.00
1-yr., S., No. 2	1.00 8.00
2-yr., S., No. 1	1.75 15.00
2-yr., S., No. 2	1.50 12.00

LONICERA FRAGRANTISSIMA, Winter Honeysuckle

6 to 12 ins., C.	$ 2.00 $15.00
12 to 18 ins., C.	2.50 20.00
18 to 24 ins., C.	3.00 25.00
12 to 18 ins., tr., br.	4.00 35.00
18 to 24 ins., tr., br.	6.00 50.00
2 to 3 ft., tr., br.	9.00 80.00
3 to 4 ft., tr., br.	15.00 ....
4 to 5 ft., tr., br.	25.00 ....

ORDER NOW WHILE WE HAVE A SURPLUS.

ALL STOCK QUOTED, F. O. B. McMINNVILLE, TENN.

Boyd NURSERY COMPANY
McMinnville, Tenn.

LEASE EXPIRATION SALE

Our lease expires on land which holds large quantities of shade and ornamental trees. We offer you, in this advertisement, a portion of these trees in various lots at prices very reasonable. Purchaser is to dig them himself. Get in touch with us, inspect the trees, and let us get together.

LOT NO. 1, $350.00
European Sycamore
23 1¼ to 1½-in. cal.
173 1½ to 2-in. cal.
73 2 to 2½-in. cal.
12 2½ to 3-in. cal.
2 3 to 4-in. cal.

LOT NO. 2, $305.00
Silver Maple
73 1½ to 2-in. cal.
30 2 to 2½-in. cal.
19 2½ to 3-in. cal.
18 3 to 4-in. cal.
Wier's Cut-leaf Maple
20 1½ to 2-in. cal.
38 2 to 2½-in. cal.
15 2½ to 3-in. cal.

LOT NO. 3, $520.00
Silver Maple
42 2 to 2½-in. cal.
82 2½ to 3-in. cal.
150 3 to 4-in. cal.
27 4 to 5-in. cal.

LOT NO. 4, $1434.00
Silver Maple
422 1½ to 2-in. cal.
237 2 to 2½-in. cal.
310 2½ to 3-in. cal.
69 3 to 4-in. cal.

LOT NO. 5, $264.00
Bolleana Poplar
35 1¼ to 1½-in. cal.
375 1½ to 2-in. cal.
21 2 to 2½-in. cal.

LOT NO. 6, $183.00
European Sycamore
29 1¼ to 1½-in. cal.
58 1½ to 2-in. cal.
40 2 to 2½-in. cal.
7 2½ to 3-in. cal.

LOT NO. 7, $95.00
Silver Maple
8 1¼ to 1½-in. cal.
41 1½ to 2-in. cal.
29 2 to 2½-in. cal.

LOT NO. 8, $472.00
Poplar Meyeri
17 6 to 8 ft.
25 8 to 10 ft.
32 1¼ to 1½-in. cal.
10 1½ to 2-in. cal.
Simoni Poplar
7 6 to 8 ft.
30 8 to 10 ft.
35 1¼ to 1½-in. cal.
22 1½ to 2-in. cal.
Carolina Poplar
11 1¼ to 1½-in. cal.
16 1½ to 2-in. cal.
7 2 to 2½-in. cal.
Lombardy Poplar
214 8 to 10 ft.
565 1¼ to 1½-in. cal.
140 1½ to 2-in. cal.

LOT NO. 9, $328.00
36 **Paul's Scarlet Thorn,** 4 to 10 ft.
142 **Washington Thorn,** 4 to 10 ft.
70 **Crusgalli Thorn,** 3 to 6 ft.
91 **Coccinea Thorn,** 4 to 8 ft.
29 **Punctata Thorn,** 4 to 8 ft.

LOT NO. 10, $166.00
18 **American Linden,** 6 to 10 ft.
22 **Ash-leaf Maple,** 6 to 12 ft.
115 **European Linden,** 6 to 10 ft.
68 **American Ash,** 6 to 12 ft.

LOT NO. 11, $259.00
188 **American Linden,** 6 to 12 ft.
74 **Liquidambar,** 6 to 12 ft.

LOT NO. 12, $425.00
90 **Alnus Glutinosa,** 6 to 12 ft.
62 **Double White Thorn,** 8 to 12 ft.
154 **Paul's Scarlet Thorn,** 5 to 10 ft.

LOT NO. 13, $109.00
30 **Ash-leaf Maple,** 1¾ to 5-in. cal.
13 **Liriodendron Tulipifera,** 6 to 12 ft.
9 **Carpinus Betulus,** 3 to 6 ft.
26 **Myssa Sylvatica,** 2 to 6 ft.

LOT NO. 14, $410.00
20 **Weeping Mt. Ash,** 3-yr. heads
23 **European Mt. Ash,** 1¼ to 1½-in. cal.
196 **European Mt. Ash,** 1½ to 2-in. cal.
96 **European Mt. Ash,** 2 to 2½-in. cal.
27 **European Mt. Ash,** 2½ to 3-in. cal.

LOT NO. 15, $90.00
15 **European Linden,** 8 to 10 ft.
22 **European Linden,** 1½ to 2-in. cal.
15 **European Linden,** 2 to 2½-in. cal.
5 **European Linden,** 2½ to 3-in. cal.

LOT NO. 16, $240.00
47 **Celtis Occidentalis,** 6 to 8 ft.
50 **Celtis Occidentalis,** 8 to 10 ft.
44 **Celtis Occidentalis,** 1¼ to 1½-in. cal.
70 **Celtis Occidentalis,** 1½ to 2-in. cal.
20 **Celtis Occidentalis,** 2 to 2½-in. cal.

LOT NO. 17, $261.00
50 **Alnus Glutinosa,** 8 to 15 ft.
18 **Prunus Padus,** 1¼ to 3-in. cal.
35 **Liquidambar,** 6 to 10 ft.

LOT NO. 18, $533.00
203 **Crataegus Coccinea,** 6 to 12 ft.
85 **Crataegus Monogyna,** 5 to 10 ft.
265 **Crataegus Mollis,** 6 to 12 ft.
223 **Crataegus Cordata,** 8 to 12 ft.

LOT NO. 19, $699.00
360 **Bolleana Poplar,** 5 to 10 ft.
871 **Lombardy Poplar,** 1¼ to 2-in. cal.
55 **Carolina Poplar,** 2 to 3-in. cal.

LOT NO. 20, $767.00
580 **Wisconsin Willow,** 8 to 15 ft.
369 **Niobe Willow,** 10 to 16 ft.

LOT NO. 21, $1175.00
120 **Norway Maple,** 2 to 2½-in. cal.
124 **Norway Maple,** 2½ to 3-in. cal.
173 **Norway Maple,** 3 to 4-in. cal.
35 **Norway Maple,** 4 to 5-in. cal.
12 **Norway Maple,** 5 to 6-in. cal.

LOT NO. 22, $3620.00
430 **Norway Maple,** 2 to 3-in. cal.
740 **Norway Maple,** 3 to 4-in. cal.
72 **Norway Maple,** 4 to 5-in. cal.

STORRS & HARRISON NURSERIES, INC. **Painesville, O.**

He can always be depended upon to take it up with the manager with great indignation. So with a chip on his shoulder we went right up to the door marked, "General Manager."

The manager was sitting there with a worried look, fumbling around with some papers. Emil began in a loud voice, "In the first place, I am an old customer of this hotel, and your smart-alec clerk out there won't give me a room and furthermore, one of your help stole my bag, my suitcase. If I don't get my suitcase back without anymore fooling around, I'll take it up with the head of the Washington, D.C. department of the convention. I am liable to have the convention moved to a different hotel. In fact, I can make it pretty hot for you."

Emil's idea of entering a complaint was to stand up for his rights with a good blast, and to leave no uncertainty that he is a big shot and that he is on the war path.

The manager, no doubt, had met up with others of Emil's catagory before so he just sat there and waited patiently for Emil to run out of steam before he spoke. He picked up his fountain pen and a fresh sheet of paper and said, "Now give me your name and address and a list of the contents of your suitcase."

"I am proprietor of the Riverbend

SHRUBS — In Storage Ready for Immediate Shipment.

	Per 100
ALTHAEA, Pink, 2 to 3 ft.	$16.00
ALTHAEA, Purple, 18 to 24 ins.	10.00
ALTHAEA, White, 2 to 3 ft.	16.00
BARBERRY, Redleaf, 18 to 24 ins.	22.00
15 to 18 ins.	18.00
12 to 15 ins.	14.00
BUDDLEIA Charming, No. 1	20.00
BUDDLEIA Dubonnet, No. 1	20.00
DESMODIUM, Pend., No. 1	20.00
ELDER, Golden, 2 to 3 ft.	18.00
EUONYMUS Europaeus, 2 to 3 ft.	25.00
FORSYTHIA Fortunei, 2 to 3 ft.	20.00
Int. Spect., 2 to 3 ft.	20.00
Suspensa, 2 to 3 ft.	22.00
LONICERA, Fragrantissima, 2 to 3 ft.	$20.00
18 to 24 ins.	15.00
Tatarica Rosea, 3 to 4 ft.	22.00
2 to 3 ft.	18.00
Tatarica Zabeli, 3 to 4 ft.	25.00
LILAC ROTHOMAGENSIS, 2 to 3 ft.	25.00
PHILADELPHUS Coronarius, 3 to 4 ft.	20.00
2 to 3 ft	16.00
CORALBERRY, Chenault, 2 to 3 ft.	12.00
18 to 24 ins.	8.00
SNOWBERRY, Mollis, 2 to 3 ft.	12.00
18 to 24 ins.	8.00
RHUS Aromatica, 3 to 4 ft.	30.00
RHUS Aromatica, 2 to 3 ft.	25.00
SALIX Purpurea Nana, 18 to 24 ins.	20.00

Send for complete list.

THE WILLIS NURSERY COMPANY **Ottawa, Kansas**

EVERGREENS

Perfect Stock, 3 to 5 ft.
$1.00 to $2.00 each in following list.

Biota Aurea Nana	Columnaris Glauca	Globes	Stricta
Burki	Irish Junipers	Pyramids	Virginiana Glauca
Canaerti	Swedish Junipers	American	Pfitzeriana
Chinensis	Mugho Pines	Savins	Pines

Yews, Boxwood and Hemlock also in lining-out size.
Come prepared to dig your own.

ZEPHYR HILL NURSERIES

Route 68 **Springfield, Ohio**

Nursery, Riverbend, Illinois and—" Emil started.

"I am very glad to meet you," said the manager. "I have often heard other nurserymen speak highly of you as one of the prominent and well-known members. Here, have a cigar. Is there anything of value in your suitcase that would make it worthwhile for anyone to steal it?"

"Some of the members would like to see my surplus list and my special prices I got in my price book. I am a honeysuckle specialist, and if I do say so myself, I make the honeysuckle prices for the trade," Emil offered as a suggestion of his importance. "It is mostly my surplus list and my price book that I am concerned about."

"Just let me have an itemized list of all the things in your suitcase so I can get it all detailed on my report. The house detectives will have to know just what they are up against," the manager said.

"First, there is my nightshirt," Emil began.

"O.K." the manager said, "One shirt, what value?"

"Its a new one, just bought it yesterday for the convention, paid 59c for it."

"Nightshirt, 59c," what next.

"Two packages of cigar clippings, two for 25c size. Then there's my shaving mug with my name in gold letters on the side, that was a birthday present from my wife. My razor, oh yes, that mug cost 50c with 60c extra for my name in gold letters, total $1.10. Then my razor and strap, genuine ivory handle, cost me $2.00.

"Does that about cover it?" says the manager. "I'll make it about $4.00 altogether."

"I should say not," says Emil, "there's a lot of more stuff. I had a extra pair of drawers, a couple of handkerchiefs and some sox and also a box of Sticktite Powder for my upper plate, it was the 60c size box. Got that down, 60c?"

"Looks like $10.00 would cover all the contents," the manager said, "now what is the description and value of the suitcase itself?"

"Wait a minute, dont try to skip over my surplus list, my order book and my special price list. How do you think I can do any trading without that? I got a chance waiting right now for a trade on some crab apples, one of the members wants to trade me out of some two year honeysuckle. If I don't get that suitcase back within two hours I will go to work and sue the hotel for damages and don't you forget that Mr. Manager."

"Couldnt you give us a little more time," the manager asked. "You see it will take me a while to question all the bell boys, and then I have to check all the outgoing guests to see if this bag could have got carried out by mistake. You just make yourself at home here in the hotel, and I will go to work on it."

Emil got up and as he put his hand in his overcoat pocket I could see that he ran onto something unexpected. Very slyly he pulled out his hand, and I could see that it was his list of grade counts with special prices and his order book. He made a quick glance at me, but did not say anything.

"I'll be back here in two hours, and I will expect to get my suitcase or else I will make it mighty hot for the hotel," that was Emil's parting word to the manager.

As we walked out into the lobby, I just made one more quick glance over the baggage, and there right on top of the pile was Emil's suitcase. It looked just the same as before, only it had a new handle. As Emil started to pick it up, one of the bell boys said to him, "We had to send your bag out for repairs. I am very sorry that the handle was broken in handling, and it just now came back from the repair shop. Shall I take it up to your room?"

"Hereafter," Emil says, "I will never let my suitcase get out of my hands." He stood there with his suitcase in his hand and said to me, "Charlie, I'm going to take this over to the Y.M.C.A. I think I'll put up over there, but I'll be right back if anybody wants to take me out for dinner."

Off and on during the rest of the convention, Emil was trying to work up a little agitation to get the convention moved to some other place, but he didn't get far with this possibility, and as far as I can find out the convention will probably be held again at the same place next year.

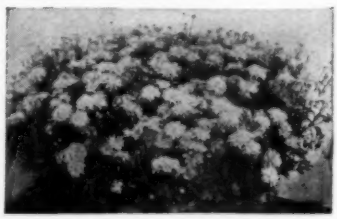
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Wow - - - What Mums!

THESE NEW SUMMER-FLOWERING

- Flowers from early August to heavy frosts.
- Large perfectly formed double blooms.
- Excellent cut flowers — beautiful colors — clean foliage.
- Very hardy — easy to grow.



A 2-yr. plant of My Lady
Hundreds of blooms

Rooted Cuttings

	Per 12	Per 100
DEAN KAY IMPROVED —Lovely rose-pink	$2.50	$15.00
DEAN LADD—Beautiful bronze-red	2.50	15.00
MY LADY — Exquisite orange-yellow	2.50	15.00
WELCOME — Unusual mallow-purple	2.50	15.00
HARMONY — Lovely yellow-rose-Brazil red	3.50	20.00
WATER LILY — Semi-double, pure white	3.50	20.00

No orders for less than 12 of one variety, please.

CORLISS BROS. INC., NURSERIES

304 Reynard Street Gloucester, Mass.

200,000 SEEDLINGS

50 sold at the 100 rate, 250 at the 1000 rate.

	Per 100	Per 1000
Colo. Blue Spruce, 3-yr., 2 to 5 ins.	$1.60	$ 9.00
Douglas Fir, 3-yr., 2 to 5 ins.	1.50	8.00
Balsam Fir, 2-yr., 1 to 3 ins.	1.50	8.00
Am. Arborvitae, 2-yr., 2 to 4 ins.	1.75	10.00
Red Cedar, 2-yr., 4 to 8 ins.	2.25	14.00
Scotch Pine, 3-yr., 6 to 12 ins.	2.00	12.00
Norway Pine, 2-yr., 2 to 4 ins.	1.40	7.00
White Pine, 2-yr., 2 to 4 ins.	1.40	7.00

5% discount for cash; or satisfactory references. April shipment, not prepaid. Free packing. Average shipping weight, 8 lbs. per 1000. Complete list, including transplants, sent on request.

BRADEN NURSERY South Windham, Maine

supplemental gasoline rations or every farmer or other off-highway user securing new E and R coupons for his gasoline-powered equipment now receives, instead of the ration book he is accustomed to, a strip of coupons in a cardboard folder, each coupon bearing a number.

Serial numbering of coupons is one of OPA's strongest weapons against the gasoline black market. First applied to the new T rations issued after January 1, 1944, it is designed both as a safeguard against thefts of coupons and as an effective means of identifying stolen coupons that turn up in the coupon flowback system.

The switch to serially numbered coupons, however, does not mean that endorsement of coupons can be abandoned, OPA emphasized. Although the serial number makes it possible to detect a stolen coupon that has been exchanged for gasoline, it is impossible to trace the coupon back to the thief—or the person who bought it from the thief—unless it is endorsed.

The numbering of coupons, however, makes it possible to warn gasoline dealers and OPA inspectors to be on the lookout for coupons reported stolen. Moreover, the serial number on a coupon identifies the part of the country in which the coupon was issued. If coupons bearing numbers known to have been issued in New England turn up in the west, they will at once draw attention. As a record is kept of what happens to every serially numbered coupon, it will be relatively simple to find out what board issued those numbers and to whom, and how they got so far from home.

The new coupons will be received by boards in rolls resembling rolls of theater tickets, some one coupon wide, some five. From these rolls, boards will tear off just enough coupons to equal the gallonage value of the ration to which the applicant is entitled. The rest stay on the roll.

The folder that accompanies the strip of coupons will bear the information usually found on the cover of a ration book. In addition, the range of serial numbers on the enclosed coupons is noted on the folder, which must be kept with the coupons at all times.

Besides guarding against theft, the elimination of tailoring will save time and manpower now spent in issuing coupons and will effect an important saving of government safety paper on which coupons are printed.

SHERWOOD'S EVERGREENS

It takes a little time to grow nursery stock and fit ornamental shrubbery for market. Are you preparing for the demand that is coming at the close of the war? Large housing projects, roadside beautification, memorials and numerous other undertakings will create a demand such as the nursery trade has seldom if ever known.

We are calling particular attention to this item from our general list:

Pinus montana mughus compacta (Mugho Pine).

The name montana means pertaining to mountains. A dense, stout dwarf evergreen of unquestionable hardiness. Coming from the high mountains of central Europe it has been dwarfed as trees frequently are that are storm swept for centuries along bleak coast lines or in rugged mountains, and only the hardiest and fittest survive. Such is the selected Mugho Pine, without a peer as a dwarf mountain evergreen. Mature trees reach a height of 4 to 5 feet but have a spread of 6 to 8 feet. It grows with numerous branches and can be kept sheared to small size if desired. Very dense, compact and deep green summer and winter. Our trees are grown from selected seed of the best type and are of very uniform quality. These are specimens grown for three years in the open field row.

	Per 10	Per 100
8 to 10 inches, twice transplanted—BR	$4.50	$40.00

While these trees are classed as light B&B stock, they can be handled very nicely bare roots, packed in damp moss. Handled in this manner they can be shipped anywhere. Planted in the nursery row, and given proper care, they will make good landscaping material in two years with minimum labor and at minimum cost. They have all been well grown on our foot hills farm. Cash with order, no packing charge.

Sherwood Nursery Co.

EVERGREENS—Propagators and Growers

141 S. E. 65th Avenue, Portland, Oregon

(Write for wholesale list for the trade only)



We Offer for Immediate Shipment

	Per 100	Per 1000
5,000 Lombardy Poplar 2 to 4 ft., 1-yr., C.	$3.00	$17.00
8,000 Silver Maple 12 to 24 ins., 1-yr., S.	1.00	4.50
200 Spiraea Prunifolia 2 to 3 ft., heavy, br.	9.00	....
200 Forsythia Fortunei 2 to 3 ft., br., 2-yr., tr.	9.00	....
50 Cydonia Japonica, Jap. Quince 18 to 24 ins., br.	12.00	....
150 Spider Lily, No. 1 Bulbs	5.00	....
300 Euonymus Patens 2-yr., tr., heavy, br.	6.00	....
500 Cornus Florida, White Dogwood 3 ft., br.	9.00	....

If interested in Native Evergreens for lining out, see our ad in February 15 issue of The American Nurseryman.

If interested in large quantities of 4 to 6-in. Hemlock, write for prices on lots up to 50,000.

O. H. PERRY NURSERY CO.

Box 545, McMinnville, Tenn.

Azaleas, Evergreen Barberries
Ligustrum Lucidum, Magnolias
Holly, Osmanthus, Viburnum

OTHER STOCK INCLUDING SPECIMEN AND LINING-OUT

Write for Wholesale Price List

LE MAC NURSERIES, HAMPTON, VA.

Variety in the Perennial Nursery

By C. W. Wood

We shall continue in this article the theme commenced in the preceding issue, stressing especially the plants for special purposes, such as covers for dry difficult places, screens, dividers, edgings, etc. It is a fact known to many neighborhood nurserymen that American gardeners are coming more and more to the use of plants for their landscape value—not because of their worth as specimen plants, but for their use under special circumstances. It will be a happy state of affairs when these conditions prevail throughout the country, for we shall then be selling in dozen lots instead of single plants. We can hasten these matters ourselves by using these special purpose plants, as they should be used, in our show gardens.

There is always a strong demand for ground covers for shady places, and nurserymen too often try to answer it by offering a few ordinary plants. Vinca minor is one of the favorite subjects for this purpose and, although a splendid plant in many respects, it can be, and often is, overdone. Instead of offering it to a public well supplied with that sort of merchandise, why not present one of the more refined subjects, like gold thread, Coptis trifolia? The latter, as its delicate appearance indicates, will need more care than the ubiquitous periwinkle, and it deserves it, too. It will need a peaty soil, for one thing, and more moisture, for another. It naturally grows in damp soil in this section, but I have found that it gets along quite well in my hilltop garden in northern Michigan as long as it has an acid soil, shade (it will even grow in full sun if it has plenty of moisture) and rocks under which to send its tiny golden roots. If it were twice as difficult to grow, its lovely, compound, shining, evergreen leaves and tiny white flowers would still be worth the effort. It is easily grown from seeds sown as soon as ripe.

The preceding paragraph reminds me that the eastern United States has another ground cover plant, the barren strawberry, Waldsteinia fragarioides, which is not appreciated at its true worth. Here we have a plant with most of the attributes considered desirable by gardeners. First of all, it is easily grown, as one can see by observing it in nature, where it makes mats of strawberrylike leaves and bursts into bloom in early spring with a display of yellow flowers. The display is continued throughout most of the open year, making it colorful from spring until freezing weather. It is a plant of wide adaptability, doing well in shade or sun, though it may need a little attention paid to its moisture needs when exposed to full sun in dry soil.

There is another ground cover plant which one sees rarely in nurseries under label of Muehlenbeckia nana that possesses not a little merit. It is never showy, but that is not a necessary part of a ground cover, and its small dark leaves make a pleasant carpet for unconsidered places. As it is rarely offered, one should keep his eyes open when visiting other nurseries.

As I was writing the foregoing, there came to mind a picture of a planting in this garden in which the barren strawberry was used as an edging to a mass planting of Lepachys columnaris pulcherrima, and that suggested another thought: The last-named plant is not accepted by gardeners at its true worth and, further, it has many uses aside from the production of its lovely maroon coneflowers. For instance, we used it for several years as a divider (perhaps low hedge would be a better term) in our garden here and it was a lovely sight when the 20-foot hedge was an upstanding (eighteen inches or so tall) display of maroon. I venture the opinion that you would sell many lepachys plants if you showed up their worth in your display plantings. It is not long-lived as a usual thing, though it usually lasts for several years here and is easily renewed from seeds. If one does not care for the maroon of variety pulcherrima, there is the yellow of the type, and growing the two together produces some interesting variations. As the size and shape of ray petals also vary not a little, the idea comes to mind that the species would make a fertile field for the plant breeder.

While looking for a special note on muehlenbeckia made several years ago (unfortunately I did not find it), I came upon one made in 1937 on a yellow-flowered sage, Salvia flava, which might well find a place here. "Salvia flava has made a favorable impression on me this year," it read, "by its amiable disposition under the most indifferent care. It had no care at all, in fact, but despite neglect it has put on a creditable show during most of July and August. Without any attention from the gardener, it has produced a steady procession of quite large yellow flowers with a splash of brown on the lower lip—a pleasing combination and a most attractive one. It would probably



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3-year, 6 to 12 ins., $15.00 per 1000

(Above special price to nurserymen only subject to change).

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Prices are for truckload or carlot shipments only. No orders will be accepted for box lot shipment.

xxx grade is specimen stock. xx grade is normal nursery row-run stock. Price list of other stock will be sent on request.

BROAD-LEAVED EVERGREENS

	xxx	xx
Elaeagnus Pungens		
3 to 4 ft.	$1.50	$1.00
4 to 5 ft.	2.25	1.50
Euonymus Patens (Sieboldi)		
18 to 24 ins.	.40	.30
24 to 30 ins.	.60	.50
30 to 36 ins.	.80	.60
Ilex Crenata Rotundifolia		
12 to 15 ins.	.50	.40
15 to 18 ins.	.75	.60
18 to 24 ins.	1.00	.80
Ligustrum Lucidum, Griffing type		
24 to 30 ins.	.60	.50
30 to 36 ins.	.75	.60
3 to 4 ft.	1.50	1.00
Magnolia Grandiflora		
3 to 4 ft.	1.50	1.25
4 to 5 ft.	2.00	1.50
5 to 6 ft.	3.00	2.50
6 to 8 ft.	4.50	4.00
Nandina Domestica		
18 to 24 ins.	.60	.50
24 to 30 ins.	.75	.60
Pyracantha Lalandi		
4 to 5 ft.	1.25	1.00
5 to 6 ft.	1.50	1.25

CONIFERS

Juniperus Chinensis Pfitzeriana		
15 to 18 ins.	.60	.50
18 to 24 ins.	.80	.60
24 to 30 ins.	1.00	.80
30 to 36 ins.	1.50	1.25
36 to 42 ins.	2.00	1.75
42 to 48 ins.	2.75	2.25
4 to 5 ft.	3.50	3.00
Juniperus Chinensis Sylvestris		
3 to 4 ft.	...	1.00
4 to 5 ft.	2.00	1.50
Juniperus Communis Hibernica, Irish, compact type		
24 to 30 ins.	.60	...
30 to 36 ins.	.75	...
Juniperus Sabina Von Ehron		
2 to 3 ft.	1.00	.80
3 to 4 ft.	2.00	1.50
Juniperus Virginiana Burki		
5 to 6 ft.	3.50	3.00
6 to 7 ft.	4.50	4.00
Juniperus Virginiana Dundee		
5 to 6 ft.	3.50	3.00
6 to 7 ft.	4.50	4.00
Juniperus Virginiana Glauca		
5 to 6 ft.	3.50	3.00
6 to 7 ft.	4.50	4.00
Juniperus Virginiana Repandens		
30 to 36 ins.	1.25	1.00
3 to 4 ft.	2.00	1.50
Thuja Orientalis Aurea Nana, Berckmans Dwarf Golden		
12 to 15 ins.	...	.35
15 to 18 ins.	.60	.50
18 to 24 ins.	.85	.70
24 to 30 ins.	1.25	1.00
Thuja Orientalis, Baker's Pyramidal.		
30 to 36 ins.	.60	.50
36 to 42 ins.	.75	.60
42 to 48 ins.	.85	.75
48 to 54 ins.	1.00	.85
54 to 60 ins.	1.25	1.00
Thuja Orientalis, Baker's Golden Pyramidal		
30 to 36 ins.	.70	.60
36 to 42 ins.	.80	.70
42 to 48 ins.	1.00	.80
Thuja Orientalis Bonita		
15 to 18 ins.	.60	.50
18 to 24 ins.	.75	.65
Thuja Orientalis Compacta Sybili		
24 to 30 ins.	...	.50
30 to 36 ins.	...	.60
36 to 42 ins.	...	.75
Thuja Orientalis Excelsa		
18 to 24 ins.	...	.50
24 to 30 ins.	.75	.60
30 to 36 ins.	1.00	.75

FLOWERING TREES

Cercis Canadensis, Redbud, bare root.		
5 to 6 ft.	.75	.60
6 to 8 ft.	1.25	1.00
Cornus Florida, White Fl. Dogwood, B&B (bare root 20% less)		
3 to 4 ft.	.60	.50
4 to 5 ft.	.75	.60
5 to 6 ft.	1.00	.85
6 to 7 ft.	1.50	1.25

CARTWRIGHT NURSERIES

OFFICES AND DISPLAY GROUNDS

2929 Poplar Avenue, Memphis 11, Tenn.

Phone 4-6446

make more than the foot to fifteen inches' growth if given a better soil and more attention, but in any case, it would be a desirable plant." It is especially suited to our present inquiry for variety in the perennial nursery, not only because of its unusualness in being a good yellow-flowered sage, but also for its ability to get along on neglect. Although I do not locate it in my catalogue file, it should be getting around, for I distributed seeds among friends about six years ago.

No doubt I have mentioned Coreopsis tripteris before in these columns, because I am enthusiastic about it as a landscape plant. But it should be mentioned in this connection, even if it may be a repetition. When gardeners ask us for tall perennials, what can we offer them? Golden glow perhaps, and maybe one of the sneezeweeds or boltonia. But Coreopsis tripteris, in its 6-foot stature, is so distinctive that it has no near competition. Imagine, if you will, long wandlike stems, clothed in dark green leaves and topped with panicles of brown-centered 8-rayed composite flowers, of pleasing golden yellow, from the middle of August until the last of September, for an idea of its usefulness in creating pretty garden pictures. Top all that with a plant of indestructible constitution and you will have a mental picture of Coreopsis tripteris. To show how accommodating it is, I might add that a planting here in solid quack grass persists from year to year without any care, though it does not reach the six feet it is capable of in good tilled soil. It is easy to grow from seeds and it may also be divided in spring.

It is unfortunate that these notes could not have been assembled so that all plants for each special purpose would have appeared in their proper sequence. I tried to do it that way and found it, because of the scattered sources, to be an impossible task; so we find a lover of shade and moisture next to a xerophil plant and a tall border plant next to a rock garden subject. But it will serve the same purpose in the end—a list of plants for variety in the neighborhood nursery. These thoughts came to mind just now when I found a note on Allium odorum and it came to me that in it we have a good and quite unusual subject for the scented garden. Not scented in the usual onion way, but, if I diagnose the odor correctly, in the pleasant way of valerian. In any event, I know that gardeners are pleasantly surprised when they come into the garden in late August

DECIDUOUS LINING-OUT STOCK

S., seedlings; C., cuttings; T., transplants.

	Per 100	Per 1000
Acer ginnala		
5,000 S., 10 to 20 ins.	$ 5.00	$40.00
400 T., 4 to 6 ft.	10.00	.....
Acer platanoides		
400 S., 7 to 14 ins.	4.00	.....
300 T., 2 to 3 ft.	8.00	.....
400 T., 3 to 4 ft.	10.00	.....
2,000 (branched whips), T., 8 to 10 ft.	115.00	$1,000.00
500 schwedleri (branched whips), T., 6 to 8 ft.	150.00	1,250.00
Acer pseudoplatanus		
300 T., 2 to 3 ft.	10.00	.....
Acer saccharum		
400 S., 18 to 24 ins.	4.00	35.00
Amelanchier laevis		
600 S., 2 to 6 ins.	4.00	.....
Amelanchier oblongifolia		
200 T., 2 to 3 ft.	7.00	.....
Amelanchier ovalis		
100 T., 2 to 3 ft.	7.00	.....
Berberis thunbergi		
11,000 2-yr., S., 6 to 15 ins.	3.50	12.00
3,000 2-yr., S., 12 to 18 ins.	4.00	20.00
Carpinus caroliniana		
900 S., 5 to 10 ins.	3.50	30.00
Carpinus cordata		
400 S., 5 to 10 ins.	3.50	30.00
Carpinus orientalis		
800 S., 5 to 10 ins.	3.50	30.00
Cercidiphyllum japonicum		
300 S., 2 to 4 ft.	8.00	.....
Cercis canadensis		
500 S., 12 to 24 ins.	6.00	50.00
Cornus alba sibirica		
575 C., 2 to 3 ft.	5.00	40.00
Cornus florida		
3,750 S., 12 to 15 ins.	4.00	30.00
2,500 S., 2 to 4 ft.	10.00	90.00
500 T., 3 to 4 ft.	20.00	180.00
500 T., 4 to 6 ft.	25.00	220.00
Cornus stolonifera lutea		
225 C.	4.00	.....
Crataegus oxyacantha		
400 T., 2 to 3 ft.	12.00	.....
500 T., 3 to 5 ft.	15.00	.....
Euonymus alatus		
950 T., 10 to 18 ins.	10.00	80.00
375 T., 18 to 24 ins.	15.00	.....
Euonymus europaeus		
800 S., 5 to 10 ins.	2.50	20.00
500 T., 2 to 4 ft.	12.00	.....
Exochorda grandiflora		
400 S., 18 to 24 ins.	5.00	.....
Forsythia fortunei		
250 C.	5.00	40.00
Forsythia intermedia		
400 C., 2 to 3 ft.	6.00	50.00

UNDERSTOCK (Red Cedar)

20,000 fine **Juniperus virginiana.** Just suited for grafting purposes. 2-yr., T. (Fall 1944 shipment.) $5.00 per 100; $35.00 per 1,000.

Koelreuteria paniculata		
450 S., 3 to 16 ins.	3.50	25.00
Laburnum alpinum		
400 S., 8 to 16 ins.	4.50	35.00
Lonicera fragrantissima		
225 C., 18 to 24 ins.	3.00	.....
Lonicera tatarica rosea		
150 C., 2 to 3 ft.	5.00	40.00
Mahonia aquifolium		
3,000 S., 6 to 12 ins.	7.00	60.00
250 S., 7 to 14 ins.	10.00	.....
Myrica caroliniensis		
1,000 S., 6 to 8 ins.	3.00	25.00
Photinia villosa		
500 S., 18 to 24 ins.	5.00	35.00
Prunus tomentosa		
450 T., 12 to 18 ins.	10.00	.....
Rhamnus frangula		
1,000 S., 3 to 6 ins.	4.00	35.00
Rhus cotinus		
750 S., 6 to 12 ins.	6.00	50.00
Sorbus americana		
1,000 S., 2 to 3 ft.	4.50	30.00
Sorbus aucuparia		
1,000 2-yr., T., 4 to 6 ft.	30.00	250.00
1,000 T., 6 to 8 ft.	50.00	400.00
Syringa vulgaris		
2,000 S., 6 to 12 ins.	4.50	40.00
400 T., 3 to 5 ft.	10.00	90.00
Syringa vulgaris alba		
500 T., 2 to 3 ft.	12.00	100.00
500 S., 6 to 12 ins.	4.00	35.00
Viburnum dentatum		
300 S., 12 to 15 ins.	4.00	.....
Viburnum fragrans		
400 T., 12 to 15 ins.	18.00	.....

For other Lining-out Stock, refer to our 2-page advertisement in the February 1 issue, or write for our wholesale catalogue.

Usual terms to trade accounts of established credit. Unknown customers please send check with order or send three trade references. All f.o.b. shipping points, boxing additional at cost. All stock listed subject to prior sale.

E. D. ROBINSON, *SALES AGENCY*

38 So. Elm St., P. O. Box 205 WALLINGFORD, CONN.

Please mention the American Nurseryman when ordering.

or early September and find so sweet a scent coming from a garlic. It gets about eighteen inches high here and, like most alliums, is accommodating enough to settle down to a pleasant existence in almost any sunny or lightly shaded situation.

While on the subject of onions, we might as well dispose of two more kinds, Allium caeruleum and A. pulchellum, which, it seems to me, are well suited to a place in our present enumeration. These two are valuable, not for their odor, which is characteristically garlic, but for their display of lovely flowers. In the first we have one of the good blues of the June border, not blue by courtesy, but of a particularly bright shade of steel blue. The umbels come at the ends of 2-foot, gracefully arched stems. The other, A. pulchellum, has many unusual characteristics to endear it to the gardener, and not the least of them is an unusual flower color. To some the color is plum, to others it is mauve and to me it seems like a crushed raspberry. Whatever it may be, the display of brightly colored drops, hanging from 15-inch stems from mid-July or a little later well into August, is one of the pleasant experiences of summer. All these onions come readily from early-sown seeds and may also be grown from divisions of the stools.

Here is a problem I wish someone would solve for me: Why is Achillea filipendulina not more often seen? I just went through my catalogue file and found only three sources of supply. Even if I missed a few, it would indicate an unwarranted apathy toward one of our better accent plants. If you would know what I mean, plant a vigorous division of this achillea in fertile soil in a sunny border and watch it shoot up to a height of five feet and top that growth with rounded corymbs of yellow flowers in summer. The almost everlasting flowers continue presentable over a long period. In addition to its value as an accent plant in the mixed border, it also makes a good divider, and a large clump is a splendid specimen plant. It may be grown from seeds or divisions.

One would think that anything so graceful as Gaura lindheimeri would, with all its other good attributes, be widely popular. Borders are so often stiff with their rigidly erect inhabitants, only relieved by the ubiquitous baby's breath, that experienced gardeners would embrace with joy everything that can help relieve the stiffness. Show them gaura, with its willowy 3-foot branching stems, ending in loose clusters of airy flowers, white with spurlike pink calyxes, and they are sure to embrace it with gladness. This is one of the better "flowers of grace" that should become widely known. It comes readily from seeds, often blooming the first year from an early start. It has done well here in the hottest and driest situations—factors which add to the value of the plant.

Perhaps this is as good a place as any to bring in one of my favorite tall border plants, Veronica virginica alba. And it would be a good time, I believe, for the neighborhood grower to add it to his list. According to my observations, few nurseries carry many tall plants except the hybrid delphiniums and hollyhocks. That, it seems to me, is not as it should be, for modern garden making calls for the wide use of stately plants, not alone for the back of the border, but also for more limited use in forward positions to relieve the monotony of many plantings and for specimen planting. Our present plant is adapted to all these roles and, in addition, has long erect spikes of white flowers in August and September to recommend it. Here it grows four feet tall in good soil that is not too dry. It is a plant of more than ordinary value at any time, especially useful to the grower looking for material to add variety to his offerings.

Several years ago (about eight, according to my notes), when Poterium obtusum became available in this country, I made the prediction that it would, for several reasons, become one of our popular plants. That much-desired condition has still to come to pass, but I still have hopes, for these things do not often arrive with speed unless a plant is so outstanding that it attracts immediate attention or that it happens to get a good persistent press agent. As the Japanese burnet lacked both these, it has remained somewhat in the background. Though it may not be outstanding, its 3-inch rosy-crimson bottle brushes, which are produced in July and August here, could be one of the joys of that difficult season. It grows to a height of two or three feet, depending upon the soil fertility and moisture. That means we have a good landscape plant, valuable not only for its graceful feathery flower clusters at a time when color from perennials is not too plentiful, but it does not mean that the plant must have a highly fertile soil and an abundance of moisture for its comfort. Although it did best here in light shade in a soil rich in leaf mold and with a moderate amount of moisture, it was quite accommodating in respect to both fertility and moisture, and also to conditions of shade and sunshine. In my opinion, it will repay the investigation of growers looking for an unusual item for their summer-flowering list. It grows easily from fall or early spring sowing.

[To be continued.]

SMALL ORNAMENTALS

	Per 100
Rosa Rugosa, double white, 2-yr., 2 to 2½ ft.	$ 25.00
Red Jap. Maple, 3-yr., grafted, 15 to 18 ins., bare root	100.00
Prunus Maritima (Beach Plum). Useful for its ornamental value and also produces fruit which make a fine jelly, (Beach Plum jelly). Light, 2 to 3 ft., mail order size	20.00
Viburnum Dilatatum, mail order size, light, 2 to 3 ft.	17.50
LINING-OUT STOCK	
Cotoneaster Praecox, transplants, ready for 4-in. pots, 12 to 15 ins.	20.00
Ilex Opaca (from New England seed), 2-yr., sdlgs., 6 to 10 ins.	5.00
Picea Conica Glauca (dwarf Alberti Spruce, grown from cuttings), 3-yr., transplants, 3 to 5 ins.	20.00
Taxus Hatfieldi, 3-yr., transplants, 8 to 12 ins.	25.00
Taxus Hatfieldi, 4-yr., transplants, 12 to 18 ins.	35.00
Viburnum Dentatum, 2-yr., sdlgs., 10 to 18 ins.	4.00
Viburnum Dilatatum, 2-yr., sdlgs., 15 to 24 ins.	5.00

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Dorothy Perkins — **Gardenia**
Eugene Jacquet — **Dorothy Perkins,** White
Wichuraiana, Memorial — **Wichuraiana,** Pink

ORNAMENTAL TREES AND SHRUBS

Prunus Triloba, 4 to 5 ft. — **Catalpa Bungei,** 2-yr., hds., 5 to 6 ft.
Maple Norway, 2½ to 3 ins. — **Almond, Dbl. Pink,** 3 to 4 ft.
Cornus Mascula, 4 to 5 ft. — **Euonymus Alatus,** 3 to 4 ft.
Forsythia, 4 to 5 ft. — **Euonymus Vegetus,** 3-yr.
Spiraea Vanhouttei, 5 to 6 ft. — **Viburnum Lantana,** 4 to 5 ft.
Viburnum Dentatum, 4 to 5 ft. — **Viburnum Lentago,** 5 to 6 ft.
Viburnum Opulus, 4 to 5 ft. — **Witch Hazel,** 5 to 6 ft.

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PRISONERS OF WAR TO WORK ON FARMS.

Prisoners of war held in Illinois, Michigan and Wisconsin army camps will be used next summer to help offset the shortage of farm workers being drafted or taking jobs in war factories.

Maj. Gen. Henry S. Aurand recently told officers of the 6th service command that prisoners must be put to work and the work they do must be essential. Prisoners were used to some extent last year, but nothing like that contemplated in the coming season. Details of the plan will be left to Col. C. J. Otjen, Illinois district commander; Col. W. H. McCarty, Wisconsin commander, and Col. S. D. Ringsdorf, Michigan.

Farmers who desire prisoners of war will have to pay the prevailing wage in their community. The prisoners will be paid 80 cents a day in script, which they may spend at exchanges within their camps, or they may allow the 80 cents to accrue to their credit. The difference between what the farmer pays and 80 cents will go to the treasurer of the United States.

Farmers who can use a half-dozen or more men will be able to have them assigned, under soldier guard, for as long a time as necessary. In areas where large numbers of prisoners are worked, they will be housed in tents. If a farmer can use only two or three men it will be necessary to make arrangements through the county agent.

Instead of sending only two or three men to work six days a week, the army will send enough prisoners to complete the job in two or three days. It would be impossible to send only a few men because of the number of guards who would be required.

Prisoners of war are held at Fort Custer and Fort Brady in Michigan, Camps Grant and Ellis in Illinois and Camp McCoy in Wisconsin.

Camp commanders were told that they must not use the prisoners on such work as landscaping and beautifying their stations.

CLARENCE ALDRICH has returned to Farmington, Mich., after a season at Miami, Fla., and will reopen Aldrich's Nursery.

RETIRED to the inactive list, officers' reserve, December 6, 1943, after having been in the army since May 6, 1942, Henry Jackson, Jr., 146 Saint Mildred court, Danville, Ky., is getting back into the landscape and nursery business which he started eight years ago.



MUGHO PINE TRANSPLANTS

Mugho Pine is a real war casualty. When present supply of liners is gone no more will be available as seed for the true dwarf type was all imported and none has come in since 1939. Seedlings are no longer to be had. Line out some of these genuine true dwarf Mugho while still available.

	Per 100	Per 1000
4 to 6 ins., X	$ 8.50	$ 80.00
6 to 9 ins., X	11.00	95.00
9 to 12 ins., X	13.00	120.00
4 to 6 ins., XX	11.00	95.00
6 to 9 ins., XX	14.00	125.00

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	Per 10	Per 100
Juniper Chinensis Keteleeri, 3½ to 4 ft.	$32.50	$300.00
Juniper Chinensis Keteleeri, 4 to 4½ ft.	37.50	350.00
Austrian Pine, 2 to 3 ft.	13.50	125.00
Scotch Pine, 3 to 4 ft.	16.50	150.00
Scotch Pine, 4 to 5 ft.	19.00	175.00
Thuja Occidentalis Pyramidalis, 2 to 3 ft.	15.00	135.00
Thuja Occidentalis Woodwardi, 18 to 24 ins.	13.50	125.00
Thuja Occidentalis Woodwardi, 24 to 30 ins.	16.00	150.00
Thuja Occidentalis Wareana, 18 to 24 ins.	13.50	125.00

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This Business of Ours

Reflections on the Progress and Problems of Nurserymen

By Ernest Hemming

WASTE.

The shortage of materials that up to the present we took to be inexhaustible makes every right-minded American feel a little guilty, because collectively we have wasted our natural resources. Recently there has been a call for men with axes to cut down trees for pulp because there is a shortage of paper.

The habit of using only the dollar value, completely ignoring all other values, is largely responsible for much of the waste. A visit to Florida and other parts of the country will confirm this. The lumberman goes in first and turns the larger trees into dollars. The turpentine man bleeds the others to death. Fire does the rest, even to burning the soil. A sovereign state is gutted so that a few individuals may accumulate dollars.

We as nurserymen know that trees, in addition to their worth in an aesthetic way and as lumber and cordwood, have a value that is fundamental to the real wealth of the country.

Our boys in north Africa and other desert areas of ancient civilizations will see countries that formerly supported large populations now turned into shifting sand. Well, as nurserymen we grow trees and perhaps see farther into the future. We see the appalling waste. Maybe our boys are getting an education in the realities of life and learning incidentally that trees and plant growth make the soil and soil is the wealth of the country and must not be wasted.

It does seem as if we are getting a little too much government regulation into our lives, but it is temporary and caused by the war—at least we hope so—but in the case of the soil it should be a function of the government to conserve it for the good of the whole. Anyone who has traveled through some parts of the United States where the cultivated land is interspersed with woodland knows the beauty of such countryside, to say nothing of the conservation of soil and water. Even in the flatlands it is desirable and on rolling or mountainous country it is essential to confine the slopes to arboreal crops to prevent the erosion of the soil that takes place with agricultural crops.

Where does the nurseryman enter into all this? Well, he can teach and preach, because the layman's ignorance of the part trees play in our very existence is appalling.

There is one cheering fact. They are beginning to teach the natural sciences in the elementary public schools; so perhaps future generations will learn that human beings should not behave like the goats on the island of Juan Fernandez. As I recall it from the days when taking the lectures on geographical botany at Kew, the story was somewhat as follows: "In the early days before the advent of the steamship, the sailing vessels used to call at the island of Juan Fernandez for water. The island is off the coast of Chile in the south Pacific. The trading vessels conceived the idea of introducing some goats on the island so the sailors could get fresh meat as well as water. Since the island was off the line of traffic, as one might say, not enough vessels called there and the goats multiplied too fast, so that they completely destroyed the indigenous flora and ate themselves out of house and home. Fortunately, botanical collections of flora of the island had been made prior to the advent of the goats."

There was some excuse for the goats, but there is none for us when we try to convert everything into dollars regardless of other values and in the end destroy our means of existence. E. H.

JAPANESE CREEPER.

Parthenocissus (Ampelopsis) tricuspidata, the Japanese creeper, is our most common deciduous vine for climbing on walls. It is a rapid-growing, high-climbing vine, with short tendrils bearing small adhesive disks by which the plant attaches itself to the support. The leaves are mostly three-lobed and four to six inches across. It is not uncommon to find some trifoliate leaves, particularly at the base of young plants. The flowers of the Boston ivy are not effective, but the bluish-black berries are attractive. The plant is a native of central China and Japan.

The Veitch variety is preferred by many landscape gardeners and plant enthusiasts because of its more refined habit of growth. The glossy green leaves are somewhat smaller and shorter-stalked. While the leaves of the species are coarsely toothed, those of the Veitch variety have smaller and less sharply pointed teeth. The trifoliate tendency of the species is more pronounced in the variety. These trifoliate leaves are often purple in the early stages of their development.

The Veitch Japanese creeper, as is true with the species, is adaptable to a wide range of soil conditions

COLORADO BLUE SPRUCE

	Per 100	Per 1000
60,000 2-yr., S. (2-0), 1 to 4-in.	$2.00	$ 9.00
40,000 3-yr., S. (3-0), 2 to 6-in.	3.00	14.00
100,000 4-yr., T. close (2-2), 3 to 6-in.	5.00	24.00

These trees grown from seed from cones hand-picked from blue trees in Colorado.

NORWAY SPRUCE

	Per 100	Per 1000
30,000 4-yr., T. close (2-2), 3 to 8-in.	$3.75	$16.00

All Bed-run. Shipped early in April.

Price of other Spruce, Pine and Fir on request.

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Size	Grade	Per 100	Per 1000
12 to 18 ins.,	2-yr., branched	$10.00	$ 75.00
18 to 24 ins.,	2-yr., branched	12.50	100.00
2 to 3 ft.,	2-yr., branched	15.00	125.00
3 to 4 ft.,	2-yr., branched	17.50	150.00
Super Grade, 2 to 3 ft.,	3-yr., well branched	25.00	200.00
Super Grade, 3 to 4 ft.,	3-yr., well branched	30.00	250.00

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2 to 6 ins..$6.00 9 to 12 ins..$18.00
6 to 9 ins..10.00 12 to 18 ins.. 25.00
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and exposures. It is hardy to cold temperatures and stands the smoke and soot of congested city districts.

The use of this vine is chiefly to cover walls of houses, as is indicated by the cover illustration. All too often the vine is left to spread as rapidly as it will to cover the entire wall with a thick mass of foliage. Trimming is limited to the area about the windows. A more interesting coverage can be obtained if some restriction and thinning of the branches are followed. Interesting patterns of lights and shadows can be developed. L. C. C.

TEXAS POSTWAR HIGHWAY MEMORIAL PROGRAM.

A proposed postwar program of Texas highway beautification and improvement projects in memory of World war veterans was furthered at a meeting held February 29 at San Antonio by a committee named to work with the Texas state highway commission and the citizens' organization for highway improvement.

Mrs. Frank W. Sorell, of San Antonio, a member of the committee, which is headed by Judge W. R. Ely, of Abilene, announced that another meeting, probably in the spring, would be held at Dallas.

Planting of trees and other shrubbery is planned in postwar memorials, Mrs. Sorell said. Each county or community would enter into the program to honor its own service men and women, it was said.

Mrs. Jud Collier, of Mumford, is chairman of the state-wide citizens' organization. On the committee with Judge Ely and Mrs. Sorell are Gib Gilchrist, dean of engineering at Texas A. & M. College; Mrs. Jerry Stillwell, Dallas, and Mrs. I. B. McFarland, Houston. Also at the conference at San Antonio was Jac L. Gubbels, interurban landscape planner of the state highway department, Austin. B. J.

SOUTHWESTERN NEWS.

E. N. Locke, formerly operating the Locke Gardens at Oakwood, Mo., is now located at Donnellson, Ia.

J. E. Bowman, operating the Bowman Nursery, Amarillo, Tex., writes: "I am getting several families of American-Japanese vegetable growers that formerly operated in California and we will raise about 100 acres of vegetables and berries."

Ralph D. Barnhart, who owns a florists' and nursery business at Coldwater, Kan., has joined the navy and the business is now being operated by Mrs. Barnhart.

ORDER NOW
and keep up your stock.
You will probably be busier later.

SEEDLINGS

	100	1000
Abies concolor, 4 to 6 ins.	$4.00	.....
Abies fraseri, 4 to 6 ins.	3.00	$25.00
Picea canadensis, 4 to 6 ins.	3.00	25.00
Picea excelsa, 6 to 8 ins.	4.00	35.00
Picea excelsa, 6 to 8 ins., tr.	6.00	50.00
Picea glauca albertiana, 3 to 4 ins.	3.00	25.00
Picea pungens glauca, 6 to 8 ins.	3.00	25.00
Picea pungens glauca, 8 to 10 ins., tr.	10.00	90.00
Pinus mughus, 4 to 8 ins.	5.00	40.00
Pinus nigra (austriaca), 8 to 10 ins.	4.00	35.00
Pseudotsuga douglasi, 6 to 8 ins.	3.00	25.00
Syringa vulgaris, 10 to 15 ins.	4.00	35.00
Thuja occidentalis, 6 to 8 ins., tr.	6.00	50.00
Thuja orientalis, 10 to 12 ins., tr.	6.00	50.00
Tsuga caroliniana, 3 to 4 ins.	4.00	35.00

CUTTINGS
From 2½-inch pots.
$12.00 per 100, 500 or over at $10.00 per 100.
Ilex crenata bullata.
Juniperus depressa plumosa.
Juniperus horizontalis Bar Harbor.
Juniperus hibernica.
Juniperus excelsa stricta.
Juniperus pfitzeriana.
Juniperus sabina.
Retinospora plumosa aurea.
Taxus cuspidata.
Taxus cuspidata nana.
Taxus intermedia.
Taxus media hicksi.
Taxus cliftoni.
Taxus repandens.
Thuja occidentalis compacta.
Thuja globosa.

GRAFTS

1-year from 2½-inch pots.	10	100
Cornus florida rubra.	$3.50	$32.50
Juniperus columnaris glauca.	3.50	32.50
Juniperus chinensis neaboriensis.	3.50	32.50
Juniperus squamata meyeri.	3.50	32.50
Juniperus virginiana burki.	3.50	32.50
Juniperus virginiana canaerti.	3.50	32.50
Juniperus virginiana glauca.	3.50	32.50
Juniperus virginiana keteleeri.	3.50	32.50
Juniperus virginiana kosteriana.	3.50	32.50
Juniperus virginiana schotti.	3.50	32.50
Juniperus virginiana pyramidiformis.	3.50	32.50
Thuja orientalis aurea nana.	2.75	25.00

HESS' NURSERIES
Mountain View, N. J.

New Books and Bulletins

WALPOLE, GARDENIST.

When it was not uncommon for gentlemen of means and fashion, in the eighteenth century, to interest themselves in the landscape design of their estates, Horace Walpole attempted to coin the word "gardenist" in order to distinguish the landscape gardener from the ordinary amateur or garden variety. Strawberry Hill, his home, gave him opportunity for exercise in landscape design, and he seems to have been studious and thoughtful about it. In his most enduring claim to literary fame "Anecdotes of Painting in England" he included a short essay on "The History of the Modern Taste in Gardening."

In a book of 260 pages entitled "Horace Walpole: Gardenist," just published by the Princeton University Press for the University of Cincinnati, at $3.50, the author, Isabel Wakelin Urban Chase, first of all presents the best text of Walpole's essay on gardening, which covers about forty pages. An equal number of pages of explanatory notes in reference to the text follow. The remainder of the book presents the results of the author's study of Walpole and his time under the general heading of "An Estimate of Walpole's Contribution to Landscape Architecture." The background of his ideas on landscape design are presented, together with his ideas on gardening and an account of some of the actual gardens of his day.

To the person interested in the rise of landscape gardening and its historical development, this book will have appeal, and it represents careful research, thoughtful study and interesting presentation.

POULTRY FARMING.

A practical guidebook for poultry farmers and for persons interested in starting a poultry enterprise, "Modern Poultry Farming," by Louis M. Hurd, has recently been published by the Macmillan Co. It is priced at $4 and is a revised edition of the book "Practical Poultry Farming," published some time ago. It contains 570 pages, with 219 illustrations, in addition to many tables.

Much of the material in this edition is new and is based on the author's experience as a member of the poultry department at Cornell University, as an extension worker and as a poultry owner. His recommendations on disease controls, feeding, hatching, brooding, caponizing, marketing, breeding for egg production and other practices are based on actual experiences. There are chapters discussing the various kinds of poultry, including turkeys, guinea fowls, ducks, geese, swans, pigeons and pheasants, and the best methods of handling them. The first four chapters of the book are concerned with poultry keeping as a business, and much valuable information on starting the enterprise and choosing a breed is given, along with a study of investment, returns and expenses in poultry farming.

In his preface, Mr. Hurd points out the need for extensive reading, study and thought before anyone starts the business of poultry keeping. This book will be of great assistance in such a course of study by those interested in what the author calls "the universal agricultural industry."

EMULSION TECHNOLOGY.

Republishing some papers on the technical aspects of emulsions by British scientists, "Emulsion Technology," just issued by the Chemical Publishing Co., Brooklyn, N. Y., at $5, also includes certain additions by American specialists. The book discusses the new developments in emulsions and the outstanding role they play in industry. It covers the theory and use of emulsions and emulsifiers in various industries. The chapter on problems connected with the preparation and application of emulsions used in agricultural spraying is one of the longest in the book.

BLUEBERRY DISEASES.

Now over seventy-five years old, the blueberry industry of the state of Maine is unique in American agriculture, producing two-thirds of the total crop by acreage and over half of the total crop by volume of the United States. Hence the Maine agricultural experiment station, at Orono, has done considerable work on pathological studies of this fruit. These are reported in bulletin 419, "Blueberry Diseases in Maine," consisting of about twenty pages of text and sixteen pages of illustrative plates.

The survey over several blueberry regions of Maine and through several seasons shows that witches'-broom, leaf rust and powdery mildew leaf spot are often severely injurious to blueberry plants. Other diseases are of less importance. Among fungicides, copper-lime dust proved generally better than others tested.

The aggravation of slight previous leaf injuries by arsenical dust ranks next in importance to fungous diseases as a cause of leaf injury. Copper-lime-arsenic dust controls both fungous and insect injury better than either copper-lime or arsenical dust and thus indirectly also greatly reduces arsenical injury.

It is recommended that where dis-



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CALIFORNIA PRIVET, 2-yr. in grades.
APPLE, 11 to 16 ins. to 1¼-inch caliper, 3 and 4-yr. budded trees, good assortment.
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eases cause leaf injury and premature defoliation, copper-lime-arsenic dust be applied when about eighty per cent of the blossoms have fallen and again about ten to fourteen days after the first application. Certain conditions contribute to the effectiveness of such dusting.

TO PLOW OR NOT TO PLOW.

New answers to the question "to plow or not to plow" have been released by the Iowa State College, at Ames. The report is an effort to offer a solution to the controversy now raging over whether the age-old practice of plowing to prepare the soil for cultivated crops is ruining the land.

The main conclusion of five years of experimenting with different methods of preparing a seedbed is the advice to Iowa farmers not to be too hasty in abandoning their moldboard plows.

The report declares that subsurface tillage (recommended by the antiplow group) with crop residues left on the surface of the ground helps to conserve soil and water. The yield of crops, however, was considerably less where the seedbed was prepared with subsurface tillage implements compared with the plow, the report said.

A satisfactory seedbed cannot be prepared with the present tandem disks in heavy sods of sweet clover and alfalfa. Also it is easier to plant and cultivate corn on plowed ground although machines have been developed that will operate satisfactorily through trash, the report continued.

Weed control becomes a major problem when crop residues are left on the surface and not plowed down. Subsurface tillage does, however, offer promising possibilities in saving labor and power costs.

The college concludes by stating that the practice of subsurface tillage cannot be recommended generally for Iowa until such problems as decreased yields, weed control and nutrient deficiencies can be solved.

The report points out that the practice of not plowing is an old one and has been in use for many years in the corn belt. This evidently was directed at the new faddists for the antiplow theory who believe they have happened upon an entirely new method of farming. It is common practice for midwestern farmers to disk instead of plow their corn land when it is to be seeded to oats. Many farmers also use only the disk for soybeans.

RHODODENDRON HYBRIDS.
Grafted, hardy varieties only.
AZALEA KAEMPFERI HYBRIDS.
Named varieties; the hardiest of all Azaleas for landscape work.
KOSTER'S BLUE SPRUCE.
Perfectly shaped; transplanted.
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Fine specimen. Also fastigiata, pendula, Riversi.
LILACS.
The best collection of choice varieties.
FLOWERING JAPANESE CHERRIES. Three outstanding varieties.
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Young, thrifty plants, selected varieties.
LABURNUM VOSSI.
Grown in standard form.
BAGATELLE NURSERY
Huntington Station, L. I., N. Y.
P. M. Koster, Mgr.
Please make request for our catalogue on business stationery.

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We offer fine assortment of 2-yr. well grown, leading varieties of shrubs, all sizes.
Also beautiful, well rooted 5/16 and 3/16 Peaches.
Write today for complete list and prices.
MALONEY BROS. NURS. CO., INC.
Dansville, New York

Wholesale Growers of
SMALL FRUIT PLANTS
Grapes, Currants, Gooseberries, Raspberries—our specialty.
Limited supply of Hydrangea P. G. in 18 to 24-inch and 12 to 18-inch for spring shipment.
FOSTER NURSERY COMPANY, INC.
69 Orchard St., Fredonia, N. Y.

EVERGREEN LINERS
Taxus, many varieties.
Juniper and Spruce grafts
seedlings and transplants.
Ask for our latest price list.
HEASLEY'S NURSERIES
Freeport Road, Butler, Pa.

PRIVET and BERBERIS
Splendid Stock
Write for Special Quotations
LESTER C. LOVETT
MILFORD DELAWARE

AMUR RIVER NORTH PRIVET CUTTINGS
Made up from proved "Mother Blocks." All hand-sorted. Privet cuttings grow into pretty dollars. Grow your own privet from our cuttings.
In lots of 5,000 or more, $1.25 per 1000. Cash with order—packing free.
ALTA VISTA NURSERIES
Davenport, Iowa

Victory Garden Conferences

Complacency of persons who mistakenly think there is no longer any need for the home production of food was viewed as the only threat to a greatly accelerated victory garden program this year by nearly 100 community, horticultural and nutritional leaders from the six New England states at a 2-day victory garden planning conference which concluded March 1 at Boston, Mass.

Last year's victory garden results were highly praised, but throughout the meeting, which was called by the United States Department of Agriculture extension service, the thought was apparent that the current program might be injured because householders are now able to find potatoes and canned fruits and vegetables in stores, in contrast to the scarcity which existed a year ago and actually forced some of the most reluctant into victory gardening.

H. W. Hochbaum, chairman of the federal government's interdepartmental victory garden committee, who has traveled extensively throughout the country in recent weeks to attend garden meetings, said he found indications of complacency everywhere, but added that he did not believe the attitude would prevail in the final analysis.

A check of the country's seed houses showing a sales increase of thirty per cent over a year ago was cited by Mr. Hochbaum, who pointed out, however, that the increase might be due to early buying.

Second at New York.

Importance of intensified family garden plot cultivation both now and after the war was stressed by speakers at a 2-day conference on victory gardens held March 2 and 3 at the Barbizon-Plaza hotel, New York, by federal and state victory garden officials and representatives of garden clubs and other civic organizations from New York, New Jersey, Delaware, Pennsylvania, Maryland and the District of Columbia.

The conference was presided over by H. W. Hochbaum, who has been in charge of the federal government's sponsorship of the victory garden program since its inception. He and other speakers stressed not only the importance of present food needs, but demands anticipated when the war is over.

Twenty-two million victory gardens are the minimum goal set for 1944. About 16,000,000 city, town and suburban gardens would be involved.

Mr. Hochbaum listed the 1944 amateur garden program objectives as including more gardens, increased production in individual gardens, increase in number of school vegetable gardens, more leafy and yellow vegetables and tomatoes, more homegrown fruit, better soil preparation and utilization of all available growing space.

C. F. Wedell, executive secretary of the Greater New York victory garden council, reported that 400,000 victory gardens were maintained in New York city's five boroughs last year and that 50,000 more would be sought in the 1944 program.

F. G. Helyar, chairman of the New Jersey victory garden committee, said that more than 400,000 gardens had been cultivated last year in his state and that an additional 200,000 would be sought this year. Similar expansion goals were revealed by representatives from other states.

Reports received during the conference included that of a committee representing the seed industry, which said that adequate supplies of most vegetable seeds were available, though some shortage might appear in wax beans, beets, cabbage and onions and that the supply was "not too plentiful" for small fruit trees, strawberries, blueberries and perennial vegetables such as rhubarb and asparagus. B. J.

SEEDS FEATURED IN LIFE.

Seeds are the subject of a feature in a recent issue of Life magazine. Accompanied by illustrations in color, the article assures gardeners that growers have a record crop of both flower and vegetable seeds ready to meet this year's increased demands.

Most popular garden flowers today, the article goes on to state, are zinnias and marigolds, which require little care and will grow without distracting the gardeners from the

I. GOOD, YOUNG, SALABLE EVERGREENS — Each per 100

Juniper virg. Burki, 2 to 3 ft., TT..... $1.50
Juniper virg. Dundee, 2½ to 3 ft., TT..... 1.50
Pinus montana mughus, 15 to 18 ins., TT..... 1.50

II. LINING-OUT EVERGREENS AND SHRUBS — Each per 1000

Biota compacta green, pots.. $0.12
Juniper grafts, out of pots.. .27½
Euonymus carrierei, 6 to 8 ins., T..... .04½
Cydonia japonica, 12 to 18 ins. .03½

III. SHRUBS — Each per 100

Cotoneaster divaricata, 2 to 3 ft..... $0.45
Spiraea froebeli, 15 to 18 ins. .12
Lilac villosa, 3 to 4 ft..... .25
Viburnum lentago, 18 to 24 ins. .15
Viburnum carlesi, 18 to 24 ins. 1.50

Typical items from our latest list. If you do not have it on your desk, you had better write now to remind us of the omission.

BURTON'S HILL TOP NURSERIES
Casstown, Ohio

LAKE'S
SHENANDOAH NURSERIES
Shenandoah 2, Iowa
Wholesale growers of a fine assortment of
GENERAL NURSERY STOCK
Spring wholesale trade list mailed March 1. If you have not received your copy, please write.

LINING-OUT PINES

WE OFFER 100,000 WESTERN YELLOW PINE, once transplanted — Per 1000

8 to 10 ins. $25.00
10 to 12 ins. 30.00
12 to 15 ins. 40.00
15 to 18 ins. 50.00
18 to 24 ins. 85.00

100,000 WESTERN YELLOW SEEDLINGS — Per 1000

2 to 4 ins..... $ 7.50
4 to 6 ins..... 10.00

100,000 AUSTRIAN PINE SEEDLINGS — Per 1000

2 to 4 ins..... $ 7.50
4 to 6 ins..... 10.00

THE WAGONER NURSERY
RFD 4 Hutchinson, Kansas

Refer to our 4-page
TRADE PRICE LIST
in the March 1 issue of the American Nurseryman and order your stock for spring now.
SHERMAN NURSERY CO.
Charles City, Iowa

LAUREL-LEAF OAKS

Bare Root	F.O.B. Nursery Per 10	Per 100
1 to 1½-in. cal.	$3.75	$3.50
1½ to 2 -in. cal.	4.00	3.75
2 to 2½-in. cal.	6.00	....

J. FRANKLIN MEEHAN & SONS, INC.
Mt. Airy, Philadelphia 19, Pa.

BUXUS SEMP. WELLERI

(Weller's Hardy Northern Type)

Only Boxwood proven hardy in Northern States for Twenty Years

Without Ball	Per 10	Per 100
6 to 8 ins. for hedging	$3.00	$25.00
8 to 10 ins. for hedging	3.50	30.00
10 to 12 ins. for hedging	4.50	40.00

Lining-out Grade	Per 100	Per 1000
3 to 6 ins., strong rooted	$10.00	$85.00
6 to 8 ins., strong rooted	12.00	100.00

WELLER NURSERIES CO., Inc.
Holland, Mich.

Ask for our Perennial Catalogue

SPREADING YEW
(Taxus cuspidata)
4 to 8-inch Rooted Cuttings

All originating from one parent plant which means these yews will be uniform in shape and size. Since heating difficulties limit operation of greenhouses, resulting in curtailed propagation, we urge you to order now.

$6.00 per 100, $47.50 per 1000, $135.00 per 3000.

ILGENFRITZ
Monroe, Mich.

VERHALEN EVERGREENS
CARLOAD and TRUCKLOADS

Choicest commercial sizes and varieties for spring sales. Ask for catalogue and low carload freight rate. Deliveries should be arranged for early this busy season. Wholesale only, no retail.

VERHALEN NURSERY COMPANY
Scottsville, Texas

HEMLOCK

Rhododendrons
Kalmia — Azaleas

Write for our list

CURTIS NURSERIES
Callicoon New York

Book orders early.
SPECIMEN EVERGREENS
SNEED NURSERY COMPANY
P. O. Box 798 Oklahoma City, Okla.

serious business of cultivating carrots and beans.

Illustrations picture a field of zinnias in bloom on the Bodger seed farm, El Monte, Cal.; salvias at the Ferry-Morse station near Detroit, Mich.; rows of marigolds in the Burpee test fields, Lompoc, Cal.; methods of harvesting tomato and cantaloupe seeds, ways of hybridizing to obtain improved varieties and David Burpee with his odorless marigold.

CATALOGUES RECEIVED.

Lake's Shenandoah Nurseries, Shenandoah, Ia.—Wholesale trade list of general nursery stock, roses, perennials and spring bulbs, 56 pages, 6x9 inches.

W. T. Smith Corp., Geneva, N. Y.—Wholesale price list of evergreens, ornamental trees and shrubs, fruit trees, hedge plants and roses, 16 pages, 4x9 inches.

Burton's Hill Top Nurseries, Casstown, O.—Wholesale price list of finished stock of shrubs, shade trees, fruit trees and small fruits and lining-out stock of evergreens, shrubs, trees and vines, 36 pages, 3½x8½ inches. Separate sheet on new globe type barberry.

Shoreway Nurseries, Glassboro, N. J.—Spring wholesale catalogue of rock plants and perennials, 28 pages and cover, 4x9 inches.

Jewell Nurseries, Inc., Lake City, Minn.—Wholesale surplus list of deciduous and coniferous lining-out and finished stock, perennials and roses, 20 pages and cover, 4x8¾ inches.

Willis Nursery Co., Ottawa, Kan.—Spring wholesale list of evergreens, shade trees, small fruits, shrubs, hardy perennials and roses, 32 pages and cover, 5½x8½ inches.

Andrews Nursery Co., Faribault, Minn.—Retail catalogue of fruit trees, small fruits, flowering shrubs, evergreens, hardy vines and roses, well illustrated in color, 32 pages, 8¼x10½ inches.

McDonnell Nursery, Oakland 9, Cal.—Retail catalogue of fruit trees, evergreens and deciduous trees, small fruits, perennial plants, flower and vegetable seeds, illustrated in color, 36 pages, 7¾x10¾ inches.

N. A. Hallauer, Webster, N. Y.—Retail price list of hardy herbaceous and alpine plants, dwarf shrubs and bulbs, 16 pages and cover, 4x9 inches.

Home Nursery, La Fayette, Ill.—Retail catalogue of nursery stock, fruit trees and small fruits, roses and hardy perennials, 24 pages and cover, 6¾x10 inches.

I. W. Scott Co., Pittsburgh 22, Pa.—Retail catalogue of vegetable, flower and grass seeds, bulbs, fruit trees and small fruits, roses and gardening supplies, illustrated, 80 pages and cover, 8x10 inches.

Carroll Gardens, Westminster, Md.—Retail catalogue of perennials, rock plants, roses and herbs, illustrated in color, 32 pages, 8x11 inches.

George W. Park Seed Co., Greenwood, S. C.—Retail catalogue of flower and vegetable seeds, well illustrated, 92 pages and cover, 5½x8½ inches.

O. A. D. Baldwin Nursery, Bridgman, Mich.—Retail catalogue of small fruits, fruit trees, shrubs, vegetable seeds and perennials, 32 pages, 6x9 inches.

CARAGANA LORBERGI

An outstanding new shrub with arching branches, Tamarix-like foliage and brilliant yellow blossoms. Hardy everywhere.

	Per 10	Per 100
2 to 3 ft.	$3.50	$30.00
3 to 4 ft.	4.50	40.00
4 to 5 ft.	5.50	50.00

FLOWERING CRAB APPLES

Large assortment, sizes 2 to 12 ft.

PRUNUS TRILOBA

	Per 10	Per 100
Standard form, 2-yr. heads	$5.00	$45.00
Standard form, extra heavy	8.50	75.00

EVERGREENS

L. O. and finished stock.
Taxus a specialty.

Ask For Our New Wholesale List.

THE COTTAGE GARDENS
N. I. W. Kriek, Prop.
Lansing 15, Mich.

TRUE DWARF BOXWOOD
Buxus Suffruticosa

		Per 10	Per 100
8 to 10 ins. x	5 to 6 ins.	$4.00	$32.50
10 to 12 ins. x	6 to 8 ins.	8.00	60.00
12 to 15 ins. x	8 to 10 ins., B & B	11.00	95.00
15 to 18 ins. x	10 to 12 ins., B & B	17.50	....
18 to 21 ins. x	12 to 14 ins., B & B	25.00	....

Grown in clay loam.

EASTERN SHORE NURSERIES, INC.
Easton, Maryland

LINING-OUT STOCK
OUR SPECIALTY . . . .

Shade Tree Whips . . . a timely finished product saving 2 to 4 yrs. growing effort . . . excellent variety.

A very complete line of
ORNAMENTAL TREES, SHRUBS and EVERGREEN SHRUBS,
including many scarce items.
Send for first 1944 list.

THOMAS B. MEEHAN CO.
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PACHYSANDRA TERMINALIS

	Per 100	Per 1000
1-yr., field-grown	$3.75	$27.50
2-yr., field-grown	4.50	35.00
3-yr., field-grown	5.50	45.00
Assorted field-grown	4.50	32.50
2¼-in., strong pot-grown	6.50	55.00

HUGH B. BARCLAY, HARBERTH, PA.

Wholesale growers of the best
Ornamental Evergreens,
Deciduous Trees,
Shrubs and Roses.
Write for our current trade list.
THE KALLAY BROTHERS CO.
Painesville, Ohio

Obituary

P. M. Koster.

The nursery trade paid its last respects to Pieter M. Koster at funeral services, February 28, at Fresh Pond crematory, Middle Village, N. Y., where there were many lovely floral offerings. Previously the remains reposed at the Huff funeral home, Huntington, and many more persons called and saw him for the last time, wasted by the disease that caused his death, February 24, at the age of 78.

After he had been awarded a certificate of merit for outstanding service by the New Jersey Association of Nurserymen, a detailed account of his career in Holland and in this country was published in the American Nurseryman for February 15, but a few days before his death. Presidents of Long Island and New York state nurserymen's associations have sent the following tributes to this departed member:

The passing of P. M. Koster stirs a profound sense of loss. Not only of personal loss to those of us who were privileged to know him intimately, but of loss, also, to the commonwealth of horticulture, in which he represented with great distinction and dignity the province of commercial arboriculture.

His was, and will remain, one of the great names and personalities in our profession, and part of its best traditions—an example, in the grand old manner, of ability, thorough training, level judgment, sound plantsmanship and notable contributions of new plant materials. We are the richer by his life's work and stand indebted to the memory of this man who put so much more into this world of ours than he took out.

Howard C. Taylor, Pres.,
New York Nurserymen's Assn.

The Long Island nurserymen mourn the death of their friend, P. M. Koster, who died at his home, at Huntington, L. I., February 24, at the age of 78 years. He will be greatly missed by all who knew and worked with him. He seemed untiring in his efforts to help his fellow nurserymen.

My recollection of, and admiration for, Pieter M. Koster go back to the days of 1914 in Holland. As a nurseryman in Naarden, in the neighborhood of Amsterdam, I became interested in the activities of the plant exporters of Boskoop and joined the Holland Association of Plant Exporters, of which Mr. Koster was president at that time. Already then Mr. Koster was one of the leading citizens and the owner and operator of one of the finest and most important nurseries of Boskoop. His father won world-wide fame by originating Picea pungens kosteri, the blue spruce, which became as popular in Europe as it has become in this country for ornamental home plantings. Interested in all kinds of nursery stock, but specializing in broad-leaved evergreens, the son later crossed Azalea (Rhododendron) kaempferi with A. malvaticum and introduced many resulting hybrids which, under names from various operas such as Othello, Aida, Carmen, Fedora, Mikado, etc., are becoming widely known and used in landscape plantings because of their lovely bright colors and their hardiness. Many other hybrid forms of azaleas, lilacs, junipers and other plants bear the name Koster, and while some may have been the products of the skill of other members of this talented horticultural family, P. M. Koster's part in the production of valuable new plants has been a large one.

Always a public-spirited man, Mr. Koster was in 1912 a sponsor and director of the famous international flower show in Boskoop. His was the honor of opening that great exhibition, and in the presence of many prominent foreign guests and delegates he conducted the exercises fluently in the four languages of which he was a master, Dutch, English, German and French. He was a charter member of the Holland Association of Plant Exporters and in 1917 was appointed by the Holland government to visit the United States as a delegate to look after Dutch interests in connection with the proposed extension of the plant quarantine law, under which later was promulgated quarantine 37. In 1919, when, as a result of that regulation, plant exporting to the United States became impossible and when conditions in Europe were very unsettled, Mr. Koster moved to America and settled at Bridgeton, N. J., where he started and managed the Koster Nurseries. Since 1928 he managed the Bagatelle Nurseries, at Huntington, L. I., where he was engaged when stricken by his last illness.

Lining-out Stock
VIBURNUM BURKWOODI
Most striking improvement in flowering shrubs in many years. Fragrant Pink and White flowers in May. Well established plants from 2½-inch pots.
$25.00 per 100
$225.00 per 1000
Packed free for cash with order.
Write for illustrated folder and prices on larger sizes.
THE SIEBENTHALER COMPANY
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We offer excellent Nursery-grown
Rhododendrons
Azaleas, Kalmias,
Pieris and Hemlocks.
"B" certificate on all shipments.
Gillett's Nurseries
Southwick, Mass. Est. 1878

READY FOR IMMEDIATE DELIVERY
5,000 Taxus, potted, 2, 3 and 4-yr. 3,000 each, Taxus Cuspidata and Tsuga Canadensis.
5-yr., spaced, frame-grown transplants, heavy root systems, ready for field rows.
75,000 Taxus and Juniper, R. C., propagated in flats; 1, 2 and 3-yr. Can ship in flats if desired. Stock suitable for potting and bedding.
25,000 Weigela, Eva Rathke, R. C., for June or as field liners for fall delivery.
We are contract growers. What can we do for you?
Correspondence invited.
HUMPHREYS LANDSCAPE SERVICE
Mt. Sterling, Ky.

See our half-page advertisement of
Juniper Glauca Hetzi
New Spreading Evergreen
in March 1 issue.
FAIRVIEW EVERGREEN NURSERIES
Fairview, Pa.

FLOWERING TREES
Peach and Crabs a Specialty
Evergreens, Shrubs,
Paul's Scarlet Roses
Order now from New Wholesale List before growth starts.
The HOWARD-HICKORY CO.
Hickory, N. C.

HOBBS OFFER:

ELM—MOUNTAIN ASH
BIRCH, Cut-leaf Weeping.
WHITE DOGWOOD—GINKGO
NORWAY and SOFT MAPLE
PIN, RED, BUR, WHITE OAK
LOMBARDY POPLAR
SWEET GUM—CRATAEGUS
THURLOW WILLOW—REDBUD
BARBERRY, Green and Red.
BEAUTY BUSH
PRIVET, Amur and Ibota.
EVERGREENS, up to 6 feet.

C. M. Hobbs & Sons, Inc.
BRIDGEPORT INDIANA
Oldest and largest Nursery in Indiana. Established 1875.

Northern-grown Stock

Specimen Evergreens B&B

Evergreen Liners

Ornamental Shrubs *and* Shade Trees

J. V. BAILEY NURSERIES
Dayton's Bluff Station
St. Paul 6, Minn.

JUNIPER SCOPULORUM

From northern Montana, selected stock.

	Per 1000
12 to 18 ins.	$80.00
8 to 10 ins.	50.00
6 to 8 ins.	40.00
4 to 6 ins.	30.00
12 to 18 ins., transplants	100.00
8 to 12 ins., transplants	80.00

SUMMIT NURSERIES
Stillwater, Minn.

EVERGREENS
Seedlings and Liners
Hardy Northern-grown
Inquiries solicited
C. WILSON'S NURSERY Pembine, Wis.

LINING-OUT STOCK
American Arborvitae
Mugho Pine, compact type
Colorado Blue Spruce
ANDREWS NURSERY
FARIBAULT, MINN.

We can supply
PINK FLOWERING DOGWOODS
In quantities.
Shall appreciate your want lists.
SOUTHERN NURSERY & LANDSCAPE CO.
Winchester, Tenn.

Throughout his whole career in this country, P. M. Koster was active in organization work in the horticultural field. He was a charter member of the New Jersey, Eastern and Long Island nurserymen's associations and of the Long Island Horticultural Society, and during the past year had given his full support to the establishment of a truly representative New York State Nurserymen's Association. He was ever in demand as a lecturer and cooperated generously in connection with educational efforts in behalf of better knowledge, use and appreciation of plant materials. In the plants he grew and loved so well and in the affection and esteem of all who knew and worked with him shall long endure a noble monument to his memory.

John Visser, Pres.,
Long Island Nurserymen's Assn.

Harlow Rockhill.

With the death of Harlow Rockhill at his home, near Conrad, Ia., March 1, horticulture lost one of its great plant breeders.

His father, Ellis Rockhill, went to Iowa in a covered wagon in 1855, settling near Clemons, and there Harlow Rockhill was born, August 28, 1866, in a log cabin. In 1876 the family moved to the farm near Conrad. Harlow Rockhill never married and is survived by two brothers, Oscar and John, and by a number of nieces and nephews.

When quite young, Mr. Rockhill became interested in strawberry breeding. This work resulted in three outstanding varieties, including the first worth-while everbearer, Progressive. Others are the Rockhill (Wayzata) and the June Rockhill, the later not yet introduced.

Later he worked with the stone fruits with notable success, producing a meritorious hybrid between the tomentosa cherry and the western sand cherry. However, his most outstanding results were with plums and plum hybrids; he produced several varieties of superior merit and one hybrid strain in which seven species are incorporated, including apricot, prune and peach. None of these have been introduced, but probably will become available sometime in the future.

Peaches, lilies, nuts, peonies and gladioli were among other items which received his attention.

Wheelock Wilson.

FORMERLY at 50 Church street, New York, the B. G. Pratt Co., manufacturer of oil sprays, is moving its offices to 160 Moore street, Hackensack, N. J.

NORTHERN-GROWN STOCK

Grown in the natural home of the evergreen.
We do not and never have had Red Cedar Blight.

	Per 1000
PLATTE RIVER RED CEDAR from select pyramidal trees.	
6 to 10 ins.	$25.00
4 to 6 ins.	15.00
AMERICAN ARBORVITAE, 3-yr.	
6 to 8 ins.	20.00
4 to 6 ins.	12.00
COLORADO BLUE SPRUCE, select, 3-yr.	
4 to 8 ins.	20.00
DOUGLAS FIR, 3-yr.	
4 to 6 ins.	15.00
HIGHBUSH CRANBERRY, 2-yr. seedlings.	Per 100
6 to 12 ins.	$1.50
AMERICAN LARCH, T.,	
3 to 4 ft.	10.00
BALSAM FIR, T.,	
12 to 15 ins.	8.00
WHITE or CANOE BIRCH,	
4 to 5 ft.	6.00
SUGAR MAPLE,	
6 to 8 ft.	20.00
OSTRICH PLUME FERNS, large clumps	6.00

Our usual strict grade and packing.
Terms: 5% discount, cash with order. No C.O.D. Satisfaction guaranteed.
J. R. PALMER & SON Blackduck, Minn.

EVERGREENS, B & B

JUNIPERS

2000 **Pfitzer**, 42 to 54 ins., each	$2.00
500 **Sabina**, 18 to 24 ins., each	1.00
500 **Sabina**, 24 to 30 ins., each	1.25
COLORADO SPRUCE Medium Blue	
250 3 to 3½ ft., each	$2.00
250 3½ to 4 ft., each	2.25
200 4 to 4½ ft., each	2.50
MUGHO PINE	
18 to 24 ins., each	$1.25
24 to 30 ins., each	1.75

Above are prices at our Nursery. Still we will box and ship at actual cost, providing we can arrange for boxes.
HOME NURSERY CO. Fort Gay, W. Va.

LINING-OUT STOCK

Grown right. Handled right. Packed right.
All two and mostly three times transplanted.

	Each, in Juniper Pfitzer.	Each, in 100 lots	Each, in 1000 lots
5 to 8 ins.		12c	10c
8 to 12 ins.		16c	14½c
Jun. Pfitz. Aurea Hilli			
4 to 8 ins.		10c	.....
5 to 8 ins.		12c	.....
8 to 12 ins.		16c	.....
12 to 15 ins.		18c	.....

AUGUSTINE NURSERIES
NORMAL, ILL.

COLORADO BLUE SPRUCE

50,000 3-yr. seedlings,
4 to 8 ins.,
$12.50 per 1,000.
JOHN ZELENKA
R. No. 2, Box 179, Grand Haven, Mich.

We have a substantial surplus of ornamentals:
SHRUBS, SHADE AND FLOWERING TREES AND ROSES
Send your Want List for quotations.
PONTIAC NURSERIES
Romeo, Mich.

Colorado Horticultural Conference

By George W. Kelly

The main purpose of the forestry and horticultural conference held at Denver, Colo., February 26, was to reorganize the old Colorado State Forestry Society into the Colorado Forestry and Horticulture Association, a change fostered by the nurserymen of the state. Most of the nurserymen were present as well as many members of garden clubs, florists, foresters, botanists and interested amateurs. Mayor Stapleton and many influential citizens of Denver were there, from seventy-five to 125 persons attending the different sessions. One hundred fifty new members were enrolled.

The morning session started with a brief business meeting. M. Walter Pesman, president of the Colorado State Forestry Society, gave a brief summary of the objectives of the new organization and introduced Col. Allen S. Peck, who presided during the forenoon. Fifteen directors were elected to form the new organization and elect officers.

Dr. H. G. Wilm, of the forest and range experiment station, Fort Collins, speaking on "How Forestry Aids Horticulture," showed by colored slides, charts and statistics, the advantages found in partially cut-over forest land. He described how an untouched forest retained more precipitation and restricted runoff, while a regulated thinning of timber produced more runoff, where such is desirable for water storage or irrigation.

"Trees in Landscape Design" was the subject of a talk by L. R. Quinlan, professor of landscape design at Kansas State College. He demonstrated how trees are the most valuable landscape materials and gave many examples of their proper use, covering the subject thoroughly and illustrating his points with a collection of fine Kodachrome slides.

Prof. J. V. K. Wagar, department of forestry, Colorado State College, discussed the question, "Shall We Spoil the West after the War?" He called attention to many specific problems which might be investigated and on which action might be recommended by this new organization. He pointed out the continuous and age-old conflict between the extremely practical engineers and the more visionary and beauty-loving landscape architects. Particular problems discussed were strip mining and oil-shale quarrying as destroyers of beauty spots, unnecessary expansion of irrigation districts restricting the range of antelope, irrigation reservoirs as beauty spots or eyesores, the encouraging of larger cities and discouraging of smaller towns by better roads and the destroying of many irreplaceable beauty spots by commercial interests.

The high light of the conference was the panel discussion on postwar horticulture. Clayton Watkins, president of the Colorado Nurserymen's Association, acted as chairman and contributed some appropriate remarks. L. L. Kumlien, of the D. Hill Nursery Co., Dundee, Ill., and Prof. L. R. Quinlan were the main speakers, each accounting for a different aspect of the subject. The Denver representative of the veterans' employment service talked on that agency's work, and all agreed that the training and employment of returning veterans in horticultural work were necessary.

L. L. Kumlien, scheduled to give a lecture on "Evergreens, How to Grow Them and How to Use Them," confined himself to a few appropriate and much-appreciated remarks concerning the number of kinds of evergreens planted in the United States and the introduction of new varieties. He told the nurserymen that they should be proud of their work and their contribution to the beauty and utility of their country.

A. M. Binkley, head of the horticulture department of Colorado State College, outlined the transition, "From Victory Gardens to Peacetime Horticulture." Professor Binkley said there was an upward trend in fruit, vegetable and flower planting after the first World war, and that the same could be expected to follow this one. He pointed out the possibilities and needs in farmstead landscape development, rural community parks, county zoning, and the placing of returning soldiers in horticultural positions. Professor Binkley mentioned the need for research in horticultural problems of many types. He expressed himself in favor of a Colorado arboretum and of including more horticultural education in all grades of school.

Dr. Louis R. Bryant, associate horticulturist, Colorado State College, spoke on "Dwarf Fruit Trees for Colorado." He told of the various dwarfing rootstocks and their degrees of dwarfing. He advised as to planting

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and varieties. His conclusion was that dwarf fruit trees were generally not successful in the region because of wind damage to poorly anchored trees and the aversion of most dwarfing stocks to western alkali soil.

GRADE CHANGES.

[Continued from page 11.]

gravel or sand to the bottom of the well to cover the drain tile openings to keep out debris. Some find it effective to mix charcoal with the gravel.

When a tree is so located that an open well would present a safety hazard, an iron grate may be provided if the expense is warranted; a fence may be built around the top of the well; the well may be corbeled toward the top to lessen the space between the trunk and the well at the ground surface.

In order to increase air circulation through the fill, it is advisable to connect the radiating and circular tile lines to the new ground surface. This may be accomplished by erecting vertical sections of 6-inch bell tile, bell up, at the intersections of the horizontal tile lines. As many sections of vertical tile may be used as are necessary just to reach the finished grade of the fill. A temporary plug of wood, a rock or a covering of tarred paper placed over the mouths of the vertical tiles will keep out debris, while the surrounding fill is being made. Later, the tiles may be filled with crushed stone or rocks to facilitate watering and fertilizing.

Large stones are then laid over the entire area encompassed by the tile field and may well be extended a few feet beyond. The depth of the stone layer is governed by the total depth of the fill. For example, a shallow fill of two feet will permit about one foot of stone fill, while in a deep fill a greater depth of stone may be beneficial. It is doubtful, however, whether stone fills greater than thirty inches would increase efficiency. The stones should be laid rather than dumped to permit leaving as many voids as possible and to prevent injury to the tile. Finer material should be used over the stone fill to choke the top of the porous layer. This is followed by a layer of hay or straw; for conifers, a layer of pine straw could be used. Sufficient topsoil of good tilth is placed on the hay to bring the fill to the desired grade.

If economy of the operation is essential, or the questionable value of the tree will not permit the expense involved in the construction of an aeration system of the type described, several variations may be

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adopted, although it should be realized that the chances for survival of the tree are somewhat lessened thereby. Modifications may include the elimination of (1) the horizontal tile field, if adequate drainage otherwise is assured; (2) vertical tiles, if ventilated, vertical blind wells can be substituted, or (3) the tree well, if the rock fill is coned up to the ground surface around the tree. In few cases of deep fill is it safe to omit the protection afforded by the stones over the root system.

Trees in Road Slopes.

Trees growing in locations which eventually will be road slopes may be treated somewhat differently as to details, but the principles involved are the same as for normal rises in grade around trees. Instead of a circular and radiating tile system, the perimeter tiles may be laid in a U shape under the drip line of the crown with the ends of the U extending outward to the face of the proposed slope. Vertical tiles should be used as described previously. Any vertical tiles which would extend into the area to be surfaced for traffic should be omitted from the protection system and some method of keeping surface road drainage away from the treated area by means of curbs or shallow ditches should be incorporated in the scheme.

The tree well is constructed with the coping just above the finished grade of the finished road slope. When adaptable to local conditions a widened, U-shaped well—the ends open toward the bottom of the slope—may be used instead of the normal round well. The porous stone layer is placed as for a normal fill, but it is beneficial, if the appearance is not objectionable, to plan to leave some of the rock fill exposed on the slope for purposes of aeration.

When valuable trees are located in or at the toe of slopes adjacent to roads or other large construction operations, any good accomplished by an aeration system may be nullified if the trunk is not protected from blasting, rolling stones and other injuries during the construction. A tree badly scarred is an open invitation to insects and disease; hence all possible care should be exercised to prevent injuries by the erection of log or heavy board lagging around the trunk.

Lowering the Grade.

When grades around trees are lowered, the problems presented are quite the opposite of those discussed. In such cases, the root systems are usually aerated only too well and the soil moisture supply is depleted. Root cutting also is often a serious problem.

Some changes in fundamental soil relationships are inevitable, but it is often possible to ameliorate the effect of the changes by measures designed to prevent excessive drying, to increase the moisture-holding capacity of the soil and to stimulate root development, particularly of the deeper roots and those in the least affected part of the root system.

Excessive drying of the soil results from three main causes—reduction of soil moisture, surface evaporation and removal of sheltering vegetation. In most soils capable of sustaining plant life, the soil water level tends roughly to parallel the surface of the ground. It is important, therefore, that the normal soil level around trees be retained as much as possible when the general gradient is lowered. This is a matter of close supervision at the time of the operation. The preservation of trees of outstanding merit, when the cost is justified, may warrant the erection of masonry retaining walls to preserve the normal relationship of the root system to the original ground surface. The moisture-retaining capacity may be increased by mixing surface peat moss or leaf mold with the soil in the back fill behind retaining walls. Surface mulches of leaf mold, straw, hay, etc., are extremely beneficial and, of course, the establishment of a permanent plant cover is highly desirable.

A modification of this plan, sometimes preferred in landscaped areas,

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is to mold the ground surface around the tree into the new general slope, instead of arbitrarily cutting slope and roots to conform to a uniform gradient. In either case an extreme effort should be made to avoid unnecessary cutting of roots.

In order that the part of the root system least affected by grade changes may be better able to take over at least a part of the functions of the injured portion, practices designed to stimulate root growth are beneficial. Deep fertilization, mulching, cultivation and watering, when possible and practicable under existing conditions, will be helpful.

It should go without saying that all reasonable care should be exercised in operations involving changes of grade to prevent soil erosion by the planting of trees and shrubs, surfacing with protective mulches, sodding and similar measures designed to hold the soil and cover construction scars.

General Treatment.

In addition to the treatment suggested, some pruning will usually be necessary whether the grade is raised or lowered around trees. Your good judgment will determine the amount of wood to remove. In the case of heavy fills, the inevitable underground changes may be compensated to some extent by the removal of the lower limbs which may be undesirable after the fill is made. All dead branches should be pruned, of course, so that the future health of the tree can be judged to some extent by the rate at which deadwood appears in the future. Adequate attention should be given to insect control and structural bracing, but cavity work is best deferred until the trees' favorable response to the grade treatment is definitely observable.

No attempt has been made in this brief discussion to cover all of the contingencies and considerations that may arise during grade changes, nor has it been possible and practicable under various conditions. However, if the principles of protection are understood, it should be possible to modify the method and still protect trees from injury due to grade changes regardless of the exigencies of the local situation.

It is all very well for us to discuss protection systems for trees among ourselves but, too often, the private arborist or landscape architect has little opportunity to offer his advice until the damage is done—and, let me add, a similar problem faces those in public service. While the homeowner occasionally is responsible for

[Concluded on page 42.]

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Osmanthus Fragrans (Sweet Olive)	8.00	10.00	12.50
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Juniperus C. Sylvestris	10.00	12.50	15.00
C. Pfitzeriana	10.00	12.50	15.00
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Twice transplanted, 9 to 12 ins.	12.00	100.00
Twice transplanted, 12 to 15 ins.	15.00	125.00
Juniperus Excelsa Stricta.		
Once transplanted, 5 to 9 ins.	7.50	50.00
Juniperus Chinensis Squamata.		
Once transplanted, 5 to 9 ins.	8.00	.....
Juniperus Sabina Tamariscifolia.		
Once transplanted, 6 to 9 ins.	8.00	.....
Twice transplanted, 9 to 12 ins.	12.50	100.00

A. PASTOR NURSERY,
4013 Lennox Blvd., Inglewood, Cal.

CHINESE (BURFORDI) HOLLY
Large, China-red berries, October to April, together with dark green holly leaves, is one of the newest, fast-selling items in the nursery sales yards. Thrives north to Ohio river and likes our southwestern prairie soils.
Special—light, 2-ft. plants, outdoor, pot-grown, $50.00 per 100. Order now.
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SCOTTSVILLE, TEXAS
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JUNIPER SCOPULORUM	Per 100	Per 1000
6 to 8 ins., seedlings	$4.00	$35.00
6 to 9 ins., transp., fl. gr.	5.00	45.00
9 to 12 ins., transp., fl. gr.	7.50	70.00
ABIES CONCOLOR 6 to 8 ins., seedlings	2.00	15.00
DOUGLAS FIR 6 to 8 ins., seedlings	2.00	15.00

DIAL NURSERY
1906 N. Cooper, Colorado Springs, Colo.

Colorado Blue Spruce, 4-yr., 4 to 8 ins., $17.00 per 1000. Norway Spruce, 3-yr., 5 to 12 ins., $16.50 per 1000. Austrian Pine, 3-yr., 6 to 12 ins., $15.00 per 1000. American Red Pine, 2-yr., $10.00 per 1000. Douglas Fir, 3-yr., 5 to 10 ins., $14.00 per 1000. Seedling and Transplant list on request. Samuel E. Dible, C. B. C. Nursery Agent, Shelocta, Pa.

HEMLOCK transplants sold out. Try our collected seedlings.
TWIN CEDAR NURSERY, Williamsburg, Mass.

RED CEDAR (Platte River Type) 1.1.
6 to 12 ins. .....$25.00 per 1000.
J. H. LUTES, Stapleton, Nebraska

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HANSEN BUSH CHERRIES
Extra-strong, Profusely Branched 3-year old, 3 to 4 ft.
HEAVY ROOT SYSTEM
$25.00 per 100.
Cash with order please.
ROBERT WAYMAN,
Box A, Bayside, L. I., N. Y.

Surplus Stock
can be easily and quickly turned into Cash
listing it in the
American Nurseryman Classified Ads.

HARDY PLANTS

PERENNIALS

	Per 100
Achillea Filipendulina	
Parker's variety. Yellow, hardy	$ 6.00
Rosea	6.00
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Aquilegia (Columbine)	
Mrs. Scott Elliott's	8.00
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Subcoeruleus	8.00
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Maximum Conqueror (Victor)	6.00
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Diener's Giant Double Shasta	10.00
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Spring Beauty	8.00
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Portola Hybrids	8.00
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Alpina Rose	7.00
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Subulata Rose	8.00
Subulata Brilliant	8.00
Subulata Lavender	6.00
Pyrethrum	
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Double Atroroseum	12.00
Sedum	
Stoloniferum Roseum	6.00
Veronica	
Spicata	7.00
Yucca Filamentosa	7.00

Strawberries	Per 1000
Sen. Dunlap	$ 4.00
Beaver	6.00
Dorsett	6.00
Wayzata, everbearing	35.00

Prices for spring, 1944, F. O. B. Herbster.
Boxing and Packing at cost.
J. J. NIGARD & SON'S NURSERY
Herbster, Wisconsin

DEPENDABLE NEW HARDY PLANTS
Oenothera, Illumination, yellow Evening Primrose; pots, $2.50 per doz., $15.00 per 100.
Pulmonaria, Johnson's Blue, bright blue bells; pots, $3.00 per doz., $18.00 per 100.
Dianthus, Allwoodi Rose Unique, double rose pink; $2.50 per doz., $15.00 per 100.
Monarda, Mrs. Perry, brilliant rose scarlet; $2.50 per doz., $15.00 per 100.

See The Difference When You Grow
the BEST NEW ASTERS

	Per 12	Per 100
Beechwood Challenger, crimson, pots.	$3.00	$18.00
Blue Lagoon, blue novibelgi	4.00	25.00
Blue Plume, deepest blue	3.00	18.00
Palmyra, pure pink, novibelgi	3.00	18.00
Violetta, deep violet-purple, pots	3.50	20.00

GOOD! NEW!
HARDY OUTDOOR CARNATIONS
Dianthus, Rock Raven Red, double rich crimson; pots, $3.50 per doz., $20.00 per 100.
Dianthus, Silvermine, double pure white; pots, $2.50 per doz., $15.00 per 100.

The STRAIN OF TOMORROW
Delphinium Lyondel, Giant Hybrids, new, all double flowers of pale blues to deep purples, mixed colors only, pots, $4.00 per doz., $25.00 per 100.

NEW . . . . . WONDERFUL
Pink Forget-me-not
MYOSOTIS PINK BEAUTY—Excellent color; compact plants; hardy perennial.
Pots, $3.00 per doz., $18.00 per 100.

CORLISS BROS., INC., Nurseries
302 Reynard Street Gloucester, Mass.

MINNESOTA GARDEN CHRYSANTHEMUMS
Boreas, Duluth, Harmony, Moonglow, Redwing, Welcome, Chippewa, Purple Star, Red Gold, Sun Red. Rooted cuttings, 10c; potted plants, 15c; Pipestone and Waterlily, R. C., 15c; potted plants, 20c. 1944 Introductions, Snowball, Butterball, Redhawk, Redwood, Glacier, potted plants, each, 50c. Cash. Also a few other popular varieties.
PERKINS BROS., R. R. 6, St. Paul 9, Minn.

PHLOX SUBULATA, Moss or Mountain Pinks, in 4 colors. A creeping moss, forming dense mats of foliage, blooms in early spring, comes in colors of white, pink, red and lavender blue, 100 div., $5.00; 1000, $30.00.
Wm. E. Wentzell Nursery, Sewell, N. J.
Write for General Price List.

HARDY CUSHION MUMS.
Place your order now. Red, white, pink, yellow, bronze, Little Bob and Santa Claus, $4.00 per 100. $35.00 per 1000. Delivery from April 1 on. Send for complete catalogue.
WONDERLAND NURSERIES, Ellerson, Va.

IRISES
SPECIAL THIS MONTH
CHOICE SIBERIAN IRISES
PRODIGIOUS BLOOMERS
Extra-strong Field Divisions
10 each, 100 plants.....$ 5.00
100 each, 1000 plants.....40.00
SPRING Planting Gives Best Results.
CAESAR. Best dark purple
BOB WHITE. Pure snow-white
RED EMPEROR. Best wine-red
GEO. WALLACE. Soft blue. Earliest of all
PERIWINKLE. Deep violet. Largest of all
NORA DISTIN. China-blue, edged white
LLEWELLYN. Gorgeous rich sky-blue
DRAGONFLY. Bluish-violet. Tallest of all
SNOW QUEEN. Huge snow-white
MRS. PERRY. Superb pinkish-mauve tone

ANOTHER SPECIAL THIS MONTH
IRIS KAEMPFERI
SHOWIEST OF ALL IRISES
They Follow the Bearded Iris in Bloom
Spring Planting Gives Best Results
THIS IS A SUPERB COLLECTION
Extra-strong Well Rooted Divisions
10 each, 100 plants.....$ 12.00
100 each, 1000 plants.....100.00
ALICE BLUE. Best double soft sky-blue
PRINCESS HOLLYHOCK. Superb rich blue-purple
BANGKOK. Huge flowers of medium blue
BETTY F. HOLMES. Best double white
CHERRY RIVER. Double cherry blossom pink
COURT GOWN. Rich Burgundy-red
BROCADE MOUNTAIN. White with red border. Double. Best of all Japs
KATHERINE HAVEMEYER. Double soft lavender
WAKAMUSHA. Best double dark striped
PYRAMID. Superb deep purple
ALL PLANTS FRESHLY DUG FOR YOUR ORDER. Cash with order, please.
ROBERT WAYMAN. Box A. Bayside, L. I., N. Y.

HEMEROCALLIS (Day Lily)
SPECIAL THIS MONTH
EXTRA-CHOICE DAY LILIES
10 each, 100 plants.....$ 6.00
100 each, 1000 plants..... 50.00
DR. REGEL. Deep Yellow. May.
GOLD DUST. Deep Gold. May, June.
MIKADO. Orange with red eye. June to Sept.
MARGARET PERRY. Brilliant Red. July, Aug.
CALYPSO. Lemon-yellow. July, Aug.
CRESSIDA. Deep Yellow. July, Aug.
FULVA. Fulvous Red. June, July.
KWANSO FL. PL. DOUBLE FLOWERS. July, Aug.
THUNBERGI. Soft Yellow. Aug.
AUREOLE. Brilliant Orange. May, June.
Cash with order please.
ROBERT WAYMAN. Box A. Bayside. L. I.. N. Y.

GLADIOLUS BULBLETS
About 800 quarts in a really grand mixture of about 50 very choice varieties. No poor ones among them.
$2.00 per qt.
Cash with order, please.
ROBERT WAYMAN. Box A. Bayside. L. I.. N. Y.

HARDY CUSHION MUMS, assorted colors, $4.00 per 100; $30.00 per 1000. Delivery from April 1 on. Write for general price list.
WM. E. WENTZELL NURSERY, Sewell, N. J.

Rainbow Iris collection, very lovely varieties: 1 each of 25 kinds, $3.00: 1 each of 50 kinds, $5.00; 1 each of 100 kinds $7.50; labeled.
Smith Gardens, Clarkston, Wash.

Peonies: Tree and Herbaceous, best varieties. Oberlin Peony Gardens. Sinking Spring. Pa.

If you don't find what you want
try a Classified Ad
under the heading "Wanted."
It's cheaper than mailing out a want list.

LINING-OUT STOCK

LINING-OUT STOCK.	Per 100
500 Ret. Plumosa, c.t., 8 to 12 ins.	$ 8.00
1000 Ret. Pl. Aurea, c.t., 8 to 10 ins.	8.00
3000 Ret. Pl. Aurea, r.c.	4.00
500 Ret. Filifera, c.t., 6 to 9 ins.	7.00
600 Ret. Fil. Aurea, c.t., 9 to 13 ins.	11.00
400 Taxus Cuspidata, spr., 4 to 6 ins.	6.00
1200 Taxus Cusp., upright, 4 to 6 ins.	6.00
2000 Taxus Cusp., upright, 6 to 9 ins.	7.50
300 Jun. Pfitzeriana, c.t., 5 to 8 ins.	7.50
400 J. Keteleeri, g.t., 10 to 15 ins.	24.00
50 Jun. Canaerti, g.t., 10 to 15 ins.	24.00
200 Jun. Meyeri, g.t., 9 to 12 ins.	24.00
250 Jun. Columnaris, g.t., 10 to 15 ins.	24.00
400 Jun. Vir. Glauca, g.t., 10 to 15 ins.	24.00
450 Thuja Occ. Pyramid., g.t., 10 to 18 ins.	24.00
500 Thuja Nana Aurea, g.t., 8 to 12 ins.	21.00
200 Dogwood, dble. wh., g.t., 10 to 18 ins.	26.00
150 Dogwood, pink, g.t., 10 to 18 ins.	26.00

BROUWER'S NURSERIES,
Ask for list. Box 25, New London, Conn.

LINING-OUT STOCK
Douglas Fir, 3-yr., 3 to 8 ins., $10.00. Douglas Fir, 3-yr., 6 to 12 ins., $15.00. White Fir (concolor), 4 to 8 ins., heavy stock, $25.00. Balsam Fir, 3-yr., 6 to 10 ins., heavy, $20.00. Colo. Blue Spruce (select seed), 3 to 8 ins., 3-yr., $15.00. Norway Red Pine, 10 to 12 ins., $18.00. Scotch Pine, 2-yr., 4 to 8 ins., $18.00. Norway Red Pine, trans., 8 to 15 ins., $28.50. Scotch Pine, 4-yr. trans., 6 to 14 ins., $30.00. All priced per 1000. Quantity orders solicited. Well packed, no charge for cash with order. This is all first-class material.
SUNCREST EVERGREEN NURSERIES, Johnstown, Pa.

LINING-OUT STOCK.
All from 2¼-in. pots.

	Per 100
Abelia Grandiflora	$ 6.00
Aucuba Japonica, 4 to 6 ins.	10.00
Aucuba Japonica, 6 to 8 ins.	12.50
Aucuba Japonica, 8 to 12 ins.	17.50
Azalea Indica, Kaempferi, Kurume	8.00
Berberis Atrocarpa, 6 to 8 ins.	7.50
Berberis Pruinosa, 6 to 8 ins.	6.50
Berberis Pruinosa, 8 to 12 ins.	9.00
Berberis Pruinosa, 12 to 15 ins.	12.50
Buxus Suffruticosa, rooted cuttings	5.00
Cinnamomum Camphora	6.00
Cleyera Ochnacea, 6 to 8 ins.	10.00
Cotoneaster Horizontalis, 12 to 18 ins.	10.00
Elaeagnus, Pungens, Reflexa (heavy)	8.00
Euonymus Patens, 4 to 6 ins.	8.00
Eurya Emarginata, 6 to 8 ins.	10.00
Eurya Emarginata, 8 to 12 ins.	12.50
Eurya Ochnacea	10.00
Ilex, Crenata Major and Crenata	
4 to 6 ins.	8.00
6 to 8 ins.	10.00
8 to 12 ins.	12.50
Ilex Glabra	9.00
Laurocerasus Officinalis	10.00
Laurus Nobilis (8)	10.00
Michelia Fuscata, 4 to 6 ins.	17.50
Nerium (Oleander)	10.00
Pittosporum Tobira, 4 to 6 ins.	8.00
6 to 8 ins.	12.50
8 to 12 ins.	15.00
Pittosporum Tobira Variegata	8.00
Pyracanthus: Gibbsi, yellow; Kansuensis, Lalandi, Rogersiana	8.00
Rosmarinus Officinalis, 8 to 12 ins.	8.00
12 to 15 ins.	12.50
Thea Sinensis, 6 to 8 ins.	6.00
8 to 12 ins.	10.00
Viburnum Japonicum, 6 to 8 ins.	8.00
8 to 12 ins.	12.50
Viburnum Odoratissimum, 6 to 8 ins.	8.00
8 to 12 ins.	10.00
Viburnum Suspensum	8.00
Viburnum Tinus, 6 to 8 ins.	8.00
8 to 12 ins.	12.50
Jasminum, Nudiflorum, Humile, Stephanense	6.00
Kadsura Japonica	12.50
Hedera Helix	10.00

FRUITLAND NURSERIES,
Augusta, Ga.

NOW BOOKING ORDERS: Lining-out Honeysuckle, Hall's Japanese and Scarlet Trumpet Sempervirens, Red and Black Chokeberries. Write for prices. Will figure with you on your want list.
MORTON BROS., R. 1, McMinnville, Tenn.

SHRUBS and TREES

BARGAINS in surplus, all first-class in every way, priced per each, 20 Thornless Honeylocust, 8 to 10 ft., 75c; 80 10 to 12 ft., 90c; 80 1¼ to 2-in. cal., 95c. 30 Hackberry, 6 to 8 ft., 50c; 70 8 to 10 ft., 80c; 30 1½ to 2 ins., 95c. 30 Norway Maple, 8 to 10 ft., 95c; 27 Norway Maple, 2 to 2½ ins., $1.90. 40 Schwedler Maple, fine, well branched, 6 to 8 ft., $1.90; 80 Schwedlers, fine 8 to 10 ft., $2.40. 20 C. L. Weeping Birch, 8 to 10 ft., $2.00; 30 C. L. Weeping Birch, 10 to 12 ft., $2.50; 30 C. L. Weeping Birch, 12 to 14 ft., $3.00. 10 English Hawthorn (C. oxyacantha), 8 to 10 ft., $1.00; 10 English Hawthorn, 10 to 12 ft., $1.40. 14 Rosa rubrifolia, 2 to 3 ft., 20c; 32 Rosa rubrifolia, 3 to 4 ft., 25c. We have super-bargains in specimen evergreens, 2 to 5 feet, if you come dig them. Terms on above special items net cash with order. Packing charged extra at cost.
RICHARDS' GARDENS
P. O. Box 363 Fort Collins, Colorado

PIN OAKS	Per 1000
3,000 9 to 12 ins.	$ 25.00
4,000 12 to 18 ins.	35.00
3,000 18 to 24 ins.	50.00
2,000 2 to 3 ft.	70.00
1,000 3 to 4 ft.	120.00
	Per 100
200 6 to 8 ft.	$100.00
200 8 to 10 ft.	150.00
BUR OAKS	Per 1000
2,000 9 to 12 ins.	$20.00
	Each
100 6 to 8 ft.	$1.50
100 8 to 10 ft.	1.75

LEAVENWORTH NURSERIES,
Leavenworth, Kansas

CHINESE ELM, 400 6 to 8 ft., $45.00 per 100. 400 8 to 10 ft., $55.00; Bolleana Poplar, 300 8 to 10 ft., $55.00; 200 1½ to 2-in., $85.00; 100 2 to 2¼-in., $140.00. Lombardy Poplar, 400 8 to 10 ft., $50.00; 400 10 to 12 ft., $65.00; 500 1½ to 2-in., $90.00; 500 2 to 2½-in., $120.00; 500 2½ to 3-in., $165.00. Scarlet Maple, 300 1½ to 2-in., $250.00; 300 2 to 2½-in., $275.00. American Ash, 8 to 10 ft., $40.00; 500 1¼ to 2-in., $75.00; 500 2 to 2½-in., $100.00. 300 Redbud, 5 to 6 ft., 80c; 6 to 8 ft., $1.15.
EGYPTIAN NURSERY & ORCHARD CO.,
Farina, Ill.

SHRUBS AND TREES

LOMBARDY POPLAR	Per 10	Per 100
8 to 10 ft.	$4.00	$35.00
10 to 12 ft.	6.50	55.00
PFITZER JUNIPER	Each	Per 10
18 to 24-in. spread	$1.65	$15.00
24 to 30-in. spread	2.15	20.00

Terms—Cash, No C. O. D.
GERN NURSERY
9336 Tesson Ferry Rd., Affton 23, Mo.

FINE NURSERY STOCK
TERMS: Goods packed and shipped at cost and risk of buyer. Beetle tag furnished.
KEY: A-bare root, twice transplanted; B-bare root, thrice transplanted; C-balled and burlapped, twice transplanted; D-balled, thrice transplanted; E-6-inch pot.
PRICES: Quoted per 100; 10 per cent off on 1000 lots. 25 plants at 100 rate, 250 at 1000 rate.
PAYMENT: 5 per cent off for cash with order—otherwise 25 per cent with order, balance C.O.D.

GRAFTED	1943 2½-in. pots	1-yr. 2½-in. pots	Field-grown
Acer pal. atropurpurea	$30	$40	.....
palmatum nigrum	30	..	.....
palmatum diss. purp.	30	..	.....
Chamaecyparis ob. gra.	..	..	15-18-in. B. $75
ob. gracilis nana	..	..	8-10-in. B. 75
Cornus florida pendula	..	35	.....
florida rubra	..	35	3-4 ft. A ..100
florida, Yellow fr.	..	40	3-4 ft. A ..100
florida, Yellow fr.	..	..	5-6 ft. A ..150
Fagus sylv. atrop.	..	40	.....
Juniperus chinensis col.	30	35	18-24-in. A. 65
virg. canaerti	30	35	.....
virg. glauca	30	35	.....
Viburnum burkwoodi	..	40	.....
carlesi	..	40	2-ft. stem, 15-in. heads ...175

BY CUTTINGS	From Sand	1-yr. 2½-in. pots	Field-grown
Amygdalus rosea	..	$12	3-4 ft. A . .$75
Azalea hinodegiri	$10	..	8-10-in. A. 50
kaempferi Hybrids	10	..	18-24-in. D.100
kaempferi Othello	10	..	18-24-in. D.100
ledifolia alba	10	..	12-15-in. D. 75
Chamaecyparis pisifera	8	10	18-24-in. A. 45
pisifera aurea	8	10	18-24-in. A. 45
pisifera plumosa	8	10	15-18-in. A. 40
pisifera pl. aurea	8	10	18-24-in. A. 45
pisifera pl. lutescens	8	10	9-12-in. A. 40
pisifera sq. veitchi	8	10	15-18-in. C . 65
Cotoneaster apiculata	..	15	.....
horizontalis	10	..	.....
microphylla	10	..	12-15-in. E. 90
Cytisus scop. strictus	12	..	18-24-in. E. 90
Gordonia alatamaha	12	20	also 2-6 ft.
Ilex crenata	8	10	.....
crenata convexa	8	10	.....
glabra	8	10	.....
opaca, berried	..	15	.....
verticillata	..	..	seedlings, XX 2-2½ ft. . 25
Juniper. ch. pfitzer.	..	12	12-18-in. A. 35
communis depressa pl.	..	..	12-in. 35
			18-in. ... 55
excelsa stricta	..	..	12-15-in. A. 40
horizontalis glauca	..	..	15-18-in. A. 55
squamata meyeri	..	10	15-18-in. D. 75
squamata parsoni	..	12	12-15-in. B. 55
Leucothoe catesbaei	..	..	15-18-in. B. 45
Magnolia amabilis	..	20	.....
conspicua	..	..	2-yr. pot-gr. 30
halliana stellata	..	20	2-yr. pot-gr. 30
Waterlily	..	30	.....
soulangeana	..	20	2-yr. pot-gr. 30
soulangeana nigra	..	25	.....
Pachysandra terminalis	..	6	.....
Pieris japonica	..	12	.....
floribunda	..	..	12-15-in. A. 75
Taxus bac. repandens	10	12	.....
cuspidata	7	9	.....
cuspidata capitata	9	12	.....
c. intermedia	8	10	.....
c. nana (brevifolia)	9	12	.....
c. media hicksi	8	10	.....
pyramidalis	9	12	.....
Thuja occidentalis	7	9	.....
occid. elegantissima	8	10	.....
occid. globosa	7	9	10-in. A ... 40
occid. globosa	..	..	12-in. A ... 50
occid. lutea	8	10	12-15-in. A. 40
occid. nigra	9	12	.....
occid. pyramidalis	8	10	2-2½ ft. A. 45
occid. rosenthali	8	10	15-18-in. A. 55
occid. spiralis	8	..	18-24-in. A. 50
occid. wareana	8	..	.....
orient. aurea nana	..	..	15-in. A ... 50
orient. aurea nana	..	..	18-in. A ... 70
Viburnum burkwoodi	..	15	18-in. A ... 75
burkwoodi	..	..	30-in. A ...200
carlesi	..	15	15-in. A ... 90
carlesi	..	..	30-in. A ...175

BY SEED
Picea excelsa, 12-in. A, $30; 15-in., $40; 24-in., $60.
Pinus mont. mughus, 9-12 ft. A, $45; 12 to 18 in., $70.
strobus, 18-in. A, $35; 24-in., $50; 30-in., $70.
Tsuga canadensis, 6-9-in. A, $25; 9-12-in., $40.
WESTBURY ROSE CO., Inc.
Henry Van den Hoorn, Pres. Westbury, L. I., N. Y.

LILACS
Our collection contains 90 per cent of the list published by the Association of Botanical Gardens as "the very finest."

1-yr.-old	$0.25
1½ to 2 ft.	.60
2 to 3 ft.	.75
3 to 4 ft.	1.25
4 to 5 ft.	2.00

(Bushy plants.)
BAGATELLE NURSERY,
Huntington Station, L. I., N. Y.

SURPLUS FINISHED LANDSCAPE STOCK at real bargain prices. Send us your want list. Forsythia, 3 to 4 ft., 18c; Regel Ligustrum, 2 to 3 ft., 15c; Bush Honeysuckle, 3 to 4 ft., 18c; Wisconsin Willow, 5 to 6 ft., 20c. Many others.
O. E. Goetz Nursery, R. 6, Sappington, Mo.

SHRUBS and TREES — Continued

	Per 100
Privets, Amur River, 36 to 48 ins.	$10.00
Privets, Amur River, 48 to 60 ins.	30.00

All bare-rooted, heavy plants.

Hypericum, evergreen, B&B, 15 to 18 ins...	.70
Hypericum, evergreen, B&B, 18 to 24 ins...	.80
Hypericum, evergreen, B&B, 24 to 30 ins...	1.00

Antigonon leptopus bulbs,
1-yr., 10c each; 2-yr., 15c each.
Write For Price List.
NEW BRAUNFELS NURS. & FL. CO., INC.
P. O. Box 418 New Braunfels, Tex.

GENERAL NURSERY STOCK
4 to 6-yr. old Shade Trees, Oriental Plane, Silver Maple, Green Ash, Willow, Poplar, Spruce, Forsythia, Weigela, Hydrangea, Hedges, Dogwood, Hemlock, Red Twig Dogwood, Morrow's Honeysuckle, Phlox Subulata, Moss or Mountain Pinks, 4 colors. Azalea Hinodegiri, Larch, Pine, Cushion Mums, Barberry, Mimosa Trees and many others. 100,000 plants and trees. Dig them yourself and take 2,000 assorted trees or more at 9c each. Will give buyer 1 year to dig them.
WM. E. WENTZELL NURSERY, Sewell, N. J.

GREEN ASH (Fraxinus Lanceolata)	Per 100
8 to 10 ft.	$55.00
6 to 8 ft.	45.00
	Per 10
Black Hills Spruce, 3 to 4 ft.	$22.50
White Spruce, 4 to 5 ft.	28.00
Colorado Green Spruce, 3 to 5 ft.	25.00

DAHLBERG NURSERIES, Ladysmith, Wis.

HONEYSUCKLE
Hall's Japanese Honeysuckle, strong, 2-yr. field-grown, 3 and 4 leads, 18 to 20 ins., best root system, select plants.
$3.00 per 100; $30.00 per 2000.
Can load your truck on short notice.
MRS. CHARLIE ROBINSON, Greenville, Ga.

25,000 Sycamore Trees, also Shrubs, 100,000 8-in. cuttings, 10,000 lbs. Kentucky Coffee Beans, per lb., 25c; Osage Orange, 70c; Sycamore Platinus, 40c; Ailanthus, 50c; Regels and Amur River North Privet, 70c; Catalpa, 60c.
SCHROEDER NURSERY CO., Granite City, Ill.

SHADE TREES AND EVERGREENS. Norway Maple, 1¾ to 6 ins.; Schwedleri Maple, 1¾ to 3 ins.; American and Chinese Elm, 1¾ to 4 ins.; Juniper Pfitzeriana (specimens), 6 to 8 ft. spd. Excellent roots.
SAMUEL I. LEH, 324 N. 13th St., Allentown, Pa.

NANDINA DOMESTICA
2-yr., 4 to 8 ins.,
$3.00 per 100.
COOK NURSERY CO.
Crossville, Ala.

DOGWOOD
Straight, heavy, white-flowering dogwood (Cornus Florida), 2 to 3 ft., $2.00 per doz.; $10.00 per 100.
MRS. CHARLIE ROBINSON, Greenville, Ga.

SALES YARD SPECIAL
Chinese Elm Trees, 100 5 to 6 ft., $11.00; 100 6 to 8 ft., $15.00. Baling free.
SWINK NURSERY CO., Swink, Colo.

CRAPE MYRTLE. Heavy 2 to 3 ft. field-grown. All colors. $2.00 per doz.; $12.50 per 100.
MRS. CHARLIE ROBINSON, Greenville, Ga.

VEGETABLE ROOTS

ASPARAGUS CROWNS, 1 and 2-yr. old Mary and Martha Washington varieties. Horse Radish cuttings. Seed Sweet Potatoes.
Write for wholesale prices.
GEO. R. PEDRICK & SONS
Pedricktown, N. J.

VINES

VINE SPECIAL

Ampelopsis Engelmanni	Per 10	Per 100
2-yr., No. 1	$1.50	$14.00
2-yr., Medium	1.20	10.00
Veitchi, 3-in. pot	1.80	15.00
2¼-in. pot	1.00	8.00
Clematis (Large-flowering)		
4-in. pot	3.20	30.00
2¼-in. pot	1.80	16.00
Honeysuckle Heckrotti, 2-yr., No. 1	$2.20	$20.00
2-yr., Medium	1.80	16.00
1-yr., No. 1	1.40	12.00
2¼-in. pot	1.00	8.00
Tellmanniana, 2-yr., No. 1	2.50	22.00
1-yr., No. 1	1.80	15.00
2¼-in. pot	1.20	10.00
Silver Lace Vine, 2¼-in. pot	1.20	10.00
4-in. pot	2.00	18.00

Varieties: Baron Veillard, Gypsy Queen, Henryi, Jackmani, Mme. Andre, Ramon, Ville de Lyon.
JEWELL NURSERIES, Inc.,
Lake City, Minn.

ORNAMENTAL VINES

Euonymus Coloratus	Per 1000
1-yr., 6 to 12 ins., tpl.	$ 40.00
2-yr., No. 1	75.00
3-yr., No. 1	150.00
Euonymus Carrierei	
1-yr., 6 to 10 ins., tpl.	50.00
2-yr., No. 1	125.00
Hall's Honeysuckle	
2-yr., Med.	80.00

W. N. SCARFF'S SONS
New Carlisle, Ohio

IVIES
LARGE-LEAF ENGLISH, Out of pots, one plant per pot, 12 to 18-in. long runners, $1.40 per 10; $12.00 per 100. Rooted cutting runners, 9 to 15 ins. long and longer, $5.00 per 100.
HAHN'S SELF-BRANCHING, Out of pots, one plant per pot, 12 to 18-in. long runners, some branched, $1.40 per 10; $12.00 per 100. Rooted cutting runners, 9 to 15 ins. long and longer, some branched, $5.00 per 100.
VERHALEN NURSERY COMPANY
SCOTTSVILLE, TEXAS
2105 North Akard Street, Dallas 1, Texas
Phone C-3749 Wholesale Only

WISTERIA, Purple, 3-yr., No. 1. Layers from blooming wood. $5.00 per 100; 3-yr., extra heavy, $2.00 per 10.
SHOAF'S PLANT FARM, R. 3, Lexington, N. C.

WANTED

WANTED—5-N-1 2-yr., 11/16 and 9/16 Apple, Peach, Plum; 3-year Blueberries; 2-yr. Dwarf Apple and Pear; 1 or 2-yr. Apricot and Nectarines; 2-yr., 11/16 and 9/16 Plum; Latham, Newburgh, Taylor Raspberries; Amur River Privet.
MALONEY BROS. NURSERY CO., INC.
Dansville, N. Y.

WANTED: Scotch Pine, Norway Red Pine 2 and 3-yr. old seedlings in quantity. Evergreen liners in variety, 2 and 3 times transplanted. Evergreen tree seeds. Address No. 291, care American Nurseryman, 343 S. Dearborn St., Chicago 4, Ill.

WANTED—Douglas Fir and Yew transplants. Also, single tiger lily bulbs.
THE EVERGREEN NURSERIES, Lowell, Ind.

WANTED—Pin Oak and Plane tree lining-out whips, around 8 ft. tall. Charles Momm & Sons, Inc., 1417 Stuyvesant Ave., Union, N. J.

WANTED—1000 Ficus Pandurata, 4 or 5-inch. Write to Everyman's Garden Nursery, 1402 Exposition Blvd., Los Angeles 7, California.

SUPPLIES

PINE FLATS

Size 18 x 12 x 3	14c
20 x 12 x 3	15c
20 x 12 x 4	15½c
Tomato Boxes, 9 x 6 x 3	5c

A. J. CAMERON,
Spring St., Farmington, N. H.

BONDED VIBRATING SCREENS are used to prepare the soil and for almost any type of screening. Also, some used motor truck scales and warehouse scales.
BONDED SCALE CO., 120 Bellview Ave., Columbus 7, Ohio.

GIBRALTAR Frost Covers pay for themselves. Most economical, long lasting, also ideal for windbreaks. 6 ft. wide, price 50 ft., $13.75; 100 ft., $26.00; 150 ft., $39.00. NEW AMSTERDAM CO., 122 Chambers St., New York 7, N. Y.

COTTONETTE Squares are best for balling. Saves time and twine. All sizes in stock. Write for prices. NEW AMSTERDAM CO., 122 Chambers St., New York 7, N. Y.

BOOKS

EVERGREENS, Shrubs and Your Lawn, 25c. Luther Creasy, Dept. N, Catawissa, Pa.

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you can offer that surplus in a classified ad of 5 lines on this page — quickly and easily turning stock into cash.

AT ONLY 20c PER LINE

you can keep a list of specialty items before trade buyers through the selling season at small cost.

AMERICAN NURSERYMAN
343 S. Dearborn St. CHICAGO 4, ILL.

We Grow 14,000,000 Trees a Year



SPRING BARGAINS

TOP Quality STOCK

Left to right—3-year Special Colorado Blue Spruce; 3-year Canadian Hemlock; 3-year Special American Red Pine; 4-year Pyramidal Arborvitae; 4-year Norway Spruce.

S.—denotes Seedlings. T.—denotes Transplants.

AUSTRIAN PINE

Grown from Certified Seed—one of the best for Christmas Trees.

	Per 100	Per 1000
2-yr. S., (2-0), 3 to 5 ins.	$3.00	$15.00
3-yr. S., (3-0), 6 to 12 ins.	3.00	18.00

SPECIAL AMERICAN RED PINE

One of the best for both Timber and Christmas Trees. Seed obtained from finest stands of virgin American Red Pine.

2-yr. S., (2-0), 2 to 4 ins.	$2.00	$10.00
3-yr. S., (3-0), 4 to 8 ins.	3.00	15.00
4-yr. T., (2-2), 6 to 10 ins.	8.00	40.00

NORWAY SPRUCE

Excellent for both Timber and Christmas Trees. Short needle.

2-yr. S., (2-0), 3 to 6 ins.	$2.00	$10.00
3-yr. S., (3-0), 6 to 12 ins.	3.00	15.00
4-yr. S., (4-0), 10 to 18 ins.	4.00	20.00
4-yr. T., (2-2), 5 to 10 ins.	7.00	35.00

BLACK HILLS SPRUCE

Superb slow-growing bushy short-needle ornamental tree.

2-yr. S., (2-0), 2 to 3 ins.	$2.00	$10.00
3-yr. S., (3-0), 3 to 6 ins.	3.00	15.00
4-yr. S., (4-0), 6 to 12 ins.	4.00	20.00

SPECIAL COLORADO BLUE SPRUCE

Seed hand-picked from select Blue Trees only. One of the most popular Ornamental and Christmas Trees. Slow-growing. Very bushy.

2-yr. S., (2-0), 2 to 4 ins.	$2.00	$10.00
3-yr. S., (3-0), 4 to 8 ins.	3.00	15.00

CANADIAN HEMLOCK

One of the Ornaments most in demand and one of the few trees that will grow in full shade or full sunlight. Can be sheared back for years. Planted as single trees or in hedge work. You can do almost ANYTHING with Hemlock.

2-yr. S., (2-0), 2 to 4 ins.	$2.80	$14.00
3-yr. S., (3-0), 4 to 8 ins.	3.60	18.00

BALSAM FIR

3-yr. S., (3-0), 3 to 5 ins.	$3.00	$15.00
4-yr. S., (4-0), 4 to 8 ins.	5.00	25.00

PYRAMIDAL ARBORVITAE

4-yr. S., (4-0), 10 to 16 ins.	$16.00	$80.00

UPRIGHT or SPREADING JAPANESE YEW

When ordering, state which variety desired.

4-yr. S., (4-0), 4 to 8 ins.	$10.00	$70.00

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FOR COMPLETE STOCK LIST

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Indiana, Pa.

We Grow 14,000,000 Trees a Year



Planet Jr. Helps All Growers!

Uncle Sam needs more food! He must feed his fighters and workers . . . must help feed his Allies. American farmers are meeting this need. They'll produce more in spite of shortage of labor and equipment!

Planet Jr. is doing what it can to help—is producing all the Planet Jr. Tractors and Equipment possible under war limitations.

This famous line includes Garden Tractors and attachments along with *specialized* Planting, Fertilizing, and Tillage Tools. Whether you farm many acres or a small garden plot—by hand, horse, or tractor—Planet Jr. makes your job easier. Send for the Planet Jr. Tractor and Implement catalogs.

S. L. ALLEN & CO., Inc.
3402 North 5th Street, Philadelphia 40, Pa.

Planet Jr.
FARM AND GARDEN TOOLS

CENTRAL PLANT BOARD TO MEET AT URBANA, ILL.

State regulatory officials of the middle west will meet at the Union building, University of Illinois, Urbana, March 28 and 29, when the Central Plant Board will hold its twentieth annual meeting, to be followed on succeeding days by a meeting of the central states entomologists.

On the opening day, after the report of the secretary-treasurer, T. L. Aamodt, Minnesota, and the address of the president, John W. Baringer, Ohio, there will be discussions of the barberry eradication program, a new pine disease and the European and southern corn borers.

In the afternoon, reports on various activities of the United States Department of Agriculture will be presented by Dr. P. N. Annand, chief of the bureau of entomology and plant quarantine; Avery S. Hoyt, associate chief, and B. M. Gaddis, in charge of domestic plant quarantines.

The same afternoon there will be a thorough-going discussion concerning the quarantines imposed in the western states on account of the Oriental fruit moth. Officials from some of the western states will be in attendance, and Dr. R. P. White, executive secretary, will represent the American Association of Nurserymen in the discussion.

The evening session and the second day are to be devoted to committee reports and discussions in the executive session of the regulatory officials only.

ST. PAUL PEONY MEETING.

R. W. Jones, St. Paul, was elected president of the Minnesota Peony and Iris Society at the annual meeting of the organization, held February 29, at St. Paul, Minn. Robert C. Schreiner, St. Paul, and A. M. Brand, Faribault, were reelected to the offices of first and second vice-presidents, respectively. Mrs. H. B. Tillotson, Minneapolis, was reelected secretary-treasurer, an office she has held for a number of years.

W. F. Christman, Northbrook, Ill., secretary of the American Peony Society, was present and outlined plans for the national peony show to be held in June at Chicago.

Judge Mangney, Duluth, was the guest speaker of the evening, talking on "Lilacs." He has grown 120 varieties, and for the most part they have responded to the limited amount of care and attention given. He favors French lilacs and encounters little or no trouble with suckers. His reason for preferring French lilacs is that they bloom sooner after planting than other kinds.

A. M. Brand added a few remarks on lilacs, and he and Judge Mangney answered numerous questions.

RICHARD P. THEIDEL, of the Hinsdale Nurseries, Hinsdale, Ill., has been at Hot Springs, Ark., for two weeks' rest.

N. N. OSLUND returned with Mrs. Oslund to their home at Cambridge, Minn., early in March, after spending the past three months with his wife's relatives at Bloomington, Ill.

Specializing in matters regarding the nursery industry of America.
Commercial collections.
Traffic matters before the Interstate Commerce Commission.
Freight bills audited.

CHARLES SIZEMORE
Traffic Manager
319½ Georgia St., Louisiana, Mo.

For 20 years secretary and traffic manager of the American Association of Nurserymen and well known to the nursery trade.
Reference: Bank of Louisiana, Mo.

FOR BEST RESULTS USE THE EFFECTIVE FUMIGANT
DOW
METHYL BROMIDE
FOR NURSERY AND GREENHOUSE PLANTS
THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

DOWAX
10 55-gal. drums (400 lbs. net each)
DOWAX at $50.00 per drum.
F. O.B. Warehouse, Jersey City, N. J.
CLAUSS BROS.
1837 N. Harlem Avenue
Chicago, Illinois.

SANI-SOIL
The perfect mulch and soil conditioner
BAMBOO CANES — RAFFIA — BULBS
McHUTCHISON & CO.
95 Chambers St. New York 7, N. Y.

Pronouncing Dictionary
of Plant Names and Botanical Terms
64 pages, 3000 names, 25c per copy
AMERICAN NURSERYMAN
343 S. Dearborn St. Chicago, Ill.

JACOB SIMONSEN, of Simonsen's Nurseries, Glenview, Ill., has been vacationing in Florida with his two daughters.

THE will of the late Edward H. Rust, pioneer nurseryman of South Pasadena, Cal., was filed for probate February 18. Included in the bequests were thirty-two acres of land, with mineral and oil rights, in San Bernardino county. Those named as sole beneficiaries were his son-in-law and daughter, Mr. and Mrs. Ralph J. Roth, and his grandchildren, Pricilla A. and Edward F. Roth.

BOOKS

for Nurserymen

Book A. Illustrates in full color 235 standard nursery items, brief description, substantially bound. Price in small lots, 75c each.

Descriptive Nursery Catalogue

Nicely illustrated, 48 pages and cover. 18c each in small lots.

Correct Planting Methods

A pocket-size 48-page booklet. Very complete but concise information, well illustrated. Helpful in preventing claims for dead stock that cost nurserymen money. Sample, 10c. Write for discounts on quantities.

Will send sample copy of each of the above on receipt of $1.00. Cash with order.

Made to Order

Catalogues, Folders, etc., with illustrations in full color or one color. Thousands of engravings available. Send your specifications or samples for estimate and suggestions.

A. B. MORSE COMPANY
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LABELS FOR NURSERYMEN

THE BENJAMIN CHASE COMPANY
DERRY, N. H.

BACTO MAKES **RICH FERTILIZER** from **WASTE MATERIALS**—garbage, leaves, garden rubbish, etc.—QUICKLY, at amazing low cost of 4c to 6c per 100 lbs.

New! Bacterial Composition **USE IT! SELL IT!**

(2) Mixed with regular commercial fertilizer, makes it go 6 to 10 times farther! (3) Stops outdoor-toilet odors; reduces waste to ash. (4) Added to pot and bed soils, increases bacterial action and growth results.

An unusual product. Try it. Special: four 4-oz. cans, $1.00 . . Also in best-selling 5-lb. ($1.65) and 25-lb. ($5.29) bags.

JEAN MACLEAN : Bridgeton 11, Ind.

WRITE VAUGHAN'S FOR BACTO

4 oz. cartons, retail for 35c each, per carton of 10, $2.25.
5 lb. bags, retail at $1.65 each. $1.15, 6 for $6.00.
25 lb. bags, retail at $5.25 each, 3 for $10.50.

VAUGHAN'S SEED STORE
601 W. Jackson Blvd. Chicago, Illinois

GRADE CHANGES.

[Concluded from page 37.]

filling around his own trees without proper protection, the chief culprits are the profit-seeking speculative builders and the hard-boiled road engineers and contractors, who are either unacquainted with the consequences of burying trees, don't know how to provide proper protection, or are not sold on the desirability of suitable protection in return for the cost involved. If the death of countless buried trees is to be prevented in the future, somebody has got to do a whale of a selling job on these people.

In some governmental agencies, considerable effort is made to protect roadside trees and those involved in some type of construction work. Changes of realignment and design are frequently made to detour or minimize injury to important trees. Some state and county highway departments have staff landscape architects who are concerned with roadside protection, development and improvement. Too often, however, they are in much the same position as the private arborist; that is, they are "accessories after the act" instead of bona fide consultants whose advice is sought, and followed, before the damage is done.

I don't pretend to know how to sell the speculator and engineer on the value of preserving trees. Unquestionably, considerable more education through newspapers, magazines, pamphlets and word of mouth is needed. But if we all make it a point to discuss the matter with builders, engineers, architects and contractors as the opportunity presents itself; publish articles in newspapers, trade journals, magazines and pamphlets, and everlastingly hammer home the importance of protecting trees to enhance real estate values, perhaps in the course of time the pressure of public opinion will convince some of the "tree buriers" that they must mend their ways or suffer the consequences.

COLORED slides showing southern California flower fields were shown at the meeting of the Superior California Nurserymen's Association, held March 1 at Sacramento.

THE arrival of a son, Sam Clark Kidd, Jr., is announced by Pvt. and Mrs. Sam Clark Kidd, partners in the Arp Nursery Co., Tyler, Tex. The son arrived February 28 at Mother Frances hospital, Tyler. Pvt. Kidd is stationed at Sheppard field in Texas, and Mrs. Kidd is acting office manager of the nursery.

ATTENTION NURSERYMEN!

IMP. SOAP SPRAY

Use 1 part with 25 to 40 parts of water

Ask your nearest seedsman, or write for literature.

THE AMERICAN COLOR AND CHEMICAL CO.
170 Purchase St. Boston, Mass.

GENUINE BURLAP SQUARES

Size approx. 24x24 inches at

$35.00 per 1000

F. O. B. Richmond, Va.
Packed 2000 in a bale.

No priority required at present.
Enclose payment with order.

ACORN BAG & BURLAP CO.
915 N. Delaware Ave., Philadelphia 23, Pa.

25,000 14x16 BURLAP SQUARES

2c each.

L. ATKINS' SONS
P. O. Box 167 Rochester, N.Y.

HYPONEX PLANT FOOD

HYPONEX is a complete plant food that will grow superior plants in soil, or even sand or water. Use HYPONEX for germination of seeds (helps to prevent damping-off). Cuttings (keeps them succulent until ready for transplanting). Transplanting (reduces shock and wilting), and for general feeding of flowers, vegetables, trees and lawns. Better root systems. Greater substance in stems, larger flowers.

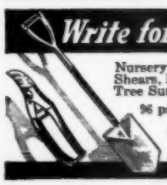
Buy from your jobber or send $1.00 for 1-lb. sample (makes 100 gals.); dollar credited on first order for 1 case for resale or 10-lb. drum for own use.

Write jobber or direct to us for prices

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COTTONETTE Nursery Squares.
GIBRALTAR Frost Covers.
HORTICULTURAL PEAT MOSS.
LIVE SPHAGNUM MOSS.
RAFFIA for budding, etc.
SAMSON-MATS.
Write for price; state requirements.

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Write for FREE Catalog!

Nursery Spades, Knives and Pruning Shears, Budding and Grafting Supplies, Tree Surgery and Lawn Equipment.

96 page catalogue free—write,

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Piqua, Ohio

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NEW 2-PLY KRAFT PAPER BAGS

size 11 by 19 ins.

OBSOLETE BRAND — PERFECT

suitable for

BULBS — PLANTS

many other uses.

Now Selling for Prompt And Spring Delivery.

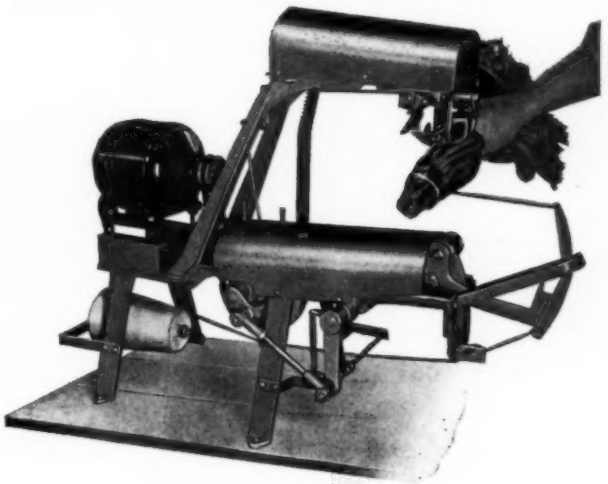
Samples and Prices Gladly Furnished upon Request.

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INCORPORATED
343 KENT AVE. BROOKLYN, N. Y.

Save Time *Save Twine* *Save Labor*

with FELINS ELECTRIC BUNCH TYER

For Bunch Vegetables, Cut Flowers, Nursery Stock



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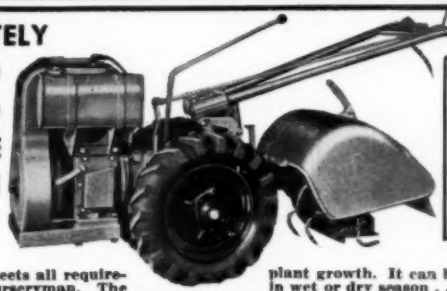
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Send for Prices.

Thomas B. Meehan Co.
Dresher, Pa.

INCREASE PLANT YIELD with less MANPOWER

A COMPLETELY PULVERIZED LEVEL SEED BED IN ONE OPERATION



DOES ALL TILLAGE JOBS

Ariens Tiller meets all requirements of the nurseryman. The perfect all-purpose tilling and cultivating combine, it harrows as it discs as it plows. ONE operation produces a properly prepared seed bed, thoroughly aerated with pulverized soil, shredded and evenly mixed—no large chunks to retard plant growth. It can be operated in wet or dry season . . . 3 models to meet your requirements. Catalogue and name of distributor upon request.

Ordnance banner awarded October 30, 1943.

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GENUINE MOSS PEAT

Hydraulic pressed bales and smaller resale packages. Sphagnum Moss, Cultivated Peat Humus.

Shipped from Northern plant at Floodwood, Minn., and Hanlontown, Iowa. Annual capacity 1,000 carloads.

Now booking for present and future deliveries.

Write or wire for quotations.

Colby Pioneer Peat Co., Inc.
Hanlontown, Iowa

Send For **BLUE BOOK**

Tools and All Supplies for Nurserymen and Tree Surgeons

AMERICAN FLORIST SUPPLY CO.
1335 W. Randolph St. CHICAGO 7

WIRE

Galvanized soft annealed, 100-lb. coils.

No. 8 or 9	$8.50	No. 14	$9.75
No. 10	8.75	No. 16	10.25
No. 12	9.25		

12-lb. stones, No. 18, galv. $2.50
No. 16 black $1.50 No. 18 black 2.40

BERGEN FLORIST SUPPLIES
247-253 Hudson St., Hackensack, N. J.

KATFISH BRAND **SPRAY HOSE** HIGH PRESSURE

ALL SIZES
High-Pressure Couplings
LOW PRICES, PROMPT SERVICE

Write for free sample

BROADWAY RUBBER MFG. CO.
Everything in Rubber Since 1901
529 East Broadway, Louisville, Ky.

HILL EVERGREENS

LINING-OUT STOCK

JUNIPER GRAFTS

	Per 100	Per 1000
Chinensis Columnaris (Blue Columnar Chinese)	$32.50	$300.00
Chinensis Sargenti, Blue (Blue Sargent)	32.50	300.00
Chinensis Sargenti, Green (Green Sargent)	32.50	300.00
Communis Depr. Vase Shape (Vase-shaped Prostrate)	32.50	300.00
Procumbens (Japanese)	32.50	300.00
Procumbens Nana (Hill Japanese)	32.50	300.00
Sabina Vonehron (Vonehron)	32.50	300.00
Scopulorum Chandler's Silver (Chandler's Silver)	32.50	300.00
Squamata Meyeri (Meyer)	32.50	300.00
Virginalis, Dark Green (Hillbush, Dark Green)	32.50	300.00
Virginalis Globosa (Hillbush, Very Dark Green)	32.50	300.00
Virginiana Canaerti (Canaert)	32.50	300.00
Virginiana Cupressifolia (Hillspire)	32.50	300.00
Virginiana Hilli (Hill Dundee)	32.50	300.00

ONCE TRANSPLANTED—FLATS

This stock is either seedlings or cuttings transplanted into flats, and grown for one or two years. Suitable to plant in beds.

	Per 100	Per 1000
Juniperus Chinensis Pfitzeriana, 6 to 8 ins.	$12.00	$100.00
Juniperus Excelsa Stricta, 4 to 6 ins.	11.00	100.00
Picea Excelsa, 8 to 10 ins.	10.00	90.00
Picea Excelsa Nidiformis, 4 to 6 ins.	12.00	100.00
Picea Glauca Conica, 3 to 4 ins.	14.00	120.00
Picea Pungens, 6 to 8 ins.	9.00	80.00
Pinus Flexilis, 4 to 6 ins.	11.00	100.00
Pinus Nigra, 6 to 8 ins.	7.00	60.00
Pinus Strobus, 6 to 8 ins.	6.00	50.00
Taxus Cuspidata Capitata, 6 to 8 ins.	16.00	140.00
Taxus Media Hicksi, 8 to 10 ins.	12.00	100.00
Tsuga Canadensis, 4 to 6 ins.	8.00	70.00
Tsuga Canadensis, 6 to 8 ins.	9.00	80.00
Euonymus Radicans Vegetus, 6 to 8 ins.	12.00	100.00

TWICE TRANSPLANTED—FRAMES

This stock has been grown either from seedlings or cuttings, grown two years in flats and transplanted into frames where it has been growing two years. Most items are suitable for field planting.

	Per 100	Per 1000
Juniperus Chinensis Pfitzeriana 10 to 12 ins.	$20.00	$175.00
Juniperus Chinensis Pfitzeriana Aurea 8 to 10 ins.	16.00	150.00
Juniperus Communis Hibernica 8 to 10 ins.	12.00	100.00
Pachysandra Terminalis, 6 to 8 ins.	5.00	40.00

TWICE TRANSPLANTED—FRAMES—Cont.

	Per 100	Per 1000
Picea Excelsa, 12 to 15 ins.	$16.00	$140.00
Picea Excelsa Pyramidalis, 12 to 15 ins.	22.00	200.00
Picea Glauca Densata, 10 to 12 ins.	12.00	100.00
Picea Glauca Densata, 12 to 15 ins.	16.00	140.00
Pinus Mughus, 4 to 6 ins.	16.00	140.00
Pinus Mughus, 6 to 8 ins.	18.00	160.00
Pinus Mughus, 6x6 ins.	30.00	275.00
Pseudotsuga Douglasi, 8 to 10 ins.	16.00	140.00
Pseudotsuga Douglasi, 10 to 12 ins.	18.00	160.00
Pseudotsuga Douglasi, 12 to 15 ins.	20.00	180.00
Taxus Cuspidata Capitata, 6 to 8 ins.	20.00	180.00
Taxus Cuspidata Spreading, 10 to 12 ins.	24.00	220.00
Taxus Cuspidata Spreading, 12 to 15 ins.	26.00	240.00
Taxus Cuspidata Browni, 6 to 8 ins.	22.00	200.00
Taxus Cuspidata Browni, 8 to 10 ins.	24.00	220.00
Taxus Cusp. Nana Pyramidalis Hilli 6 to 8 ins.	22.00	200.00
Taxus Media Hicksi, 6 to 8 ins.	16.00	140.00
Taxus Media Hicksi, 8 to 10 ins.	18.00	160.00
Taxus Media Hicksi, 15 to 18 ins.	40.00	350.00
Taxus Media, No. 1, 8 to 10 ins.	22.00	200.00
Taxus Media, No. 1, 10 to 12 ins.	24.00	220.00
Thuja Occidentalis Pyramidalis 10 to 12 ins.	16.00	140.00
Tsuga Canadensis, 10 to 12 ins.	24.00	220.00

TWICE TRANSPLANTED—FIELD

This is heavy stock from open field rows. Will quickly develop into specimen stock.

JUNIPERUS	Per 100	Per 1000
Chinensis Keteleeri, 12 to 18 ins.	$55.00	$500.00
Chinensis Keteleeri, 18 to 24 ins.	65.00	600.00
Chinensis Pfitzeriana, 12 to 15 ins.	27.50	250.00
Chinensis Pfitzeriana, 15 to 18 ins.	32.50	300.00
Chinensis Sargenti, Blue, 12 to 15 ins.	60.00	.....
Chinensis Sargenti, Green, 10 to 12 ins.	50.00	.....
Com. Depressa, Vase Shape, 12 to 15 ins.	50.00	450.00
Procumbens, 12 to 15 ins.	60.00	500.00
Sabina, 12 to 15 ins.	40.00	.....
Virginalis, Dark Green, 12 to 15 ins.	60.00	550.00
Virginiana Burki, 18 to 24 ins.	60.00	550.00
Virginiana Canaerti, 12 to 18 ins.	60.00	550.00
Virginiana Hilli, 12 to 18 ins.	60.00	550.00
Virginiana Horizontalis Glauca, 15 to 18 ins.	60.00	.....
Virginiana Pyramidalis, 15 to 18 ins.	50.00	.....
Picea Excelsa, 15 to 18 ins.	22.00	200.00
Picea Excelsa, 18 to 24 ins.	24.00	220.00
Picea Glauca, 10 to 12 ins.	17.00	150.00
Picea Glauca, 12 to 18 ins.	22.00	200.00
Thuja Occidentalis, 18 to 24 ins.	32.50	300.00
Occidentalis Pyramidalis, 12 to 18 ins.	35.00	300.00
Occidentalis Pyramidalis, 18 to 24 ins.	45.00	400.00
Occidentalis Pyramidalis, 24 to 30 ins.	55.00	500.00

D. HILL NURSERY COMPANY

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DUNDEE, ILLINOIS